Speco Internet Protocol (SIP) Series Camera Instruction Manual
(Version 1.0.0)

SIP Weatherproof Bullet Cameras

SIPB1 & SIPB2

SIP Tamperproof Weatherproof Dome Cameras

SIPD3 & SIPD4

SIP Traditional Camera

SIPT5

SIP Weathrproof Speed Dome Camera

SIPSD10X

SIP Megapixel Cameras

SIPMPB & SIPMPD & SIPMPT

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1 FEATURES

1.1 Package

SIP/SIPMP Camera   Software CD   Quick Install Guide
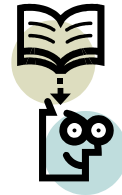
Cross LAN Cable   Accessory Pack   Power Lead Cable

Package of Products is composed of the main body of the camera, Software CD (NVR Program, Product Manual, NVR Manual), Quick Install Guide, Cross LAN Cable, Accessory Pack, Power Lead Cable.
Please check before starting installation.

1.2 Dimension and Connector Description

1.2.1 Dimensions

1. **SIPB1 & SIPB2**
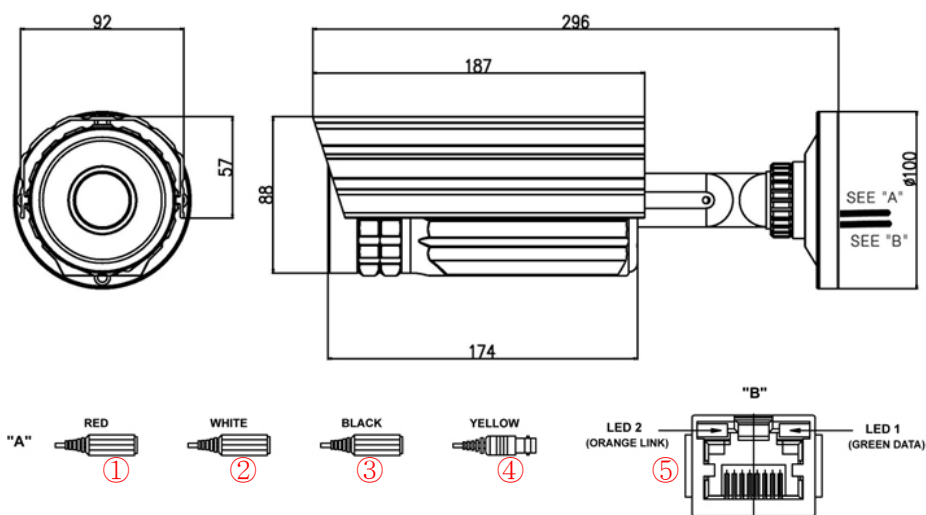
2. SIPD3
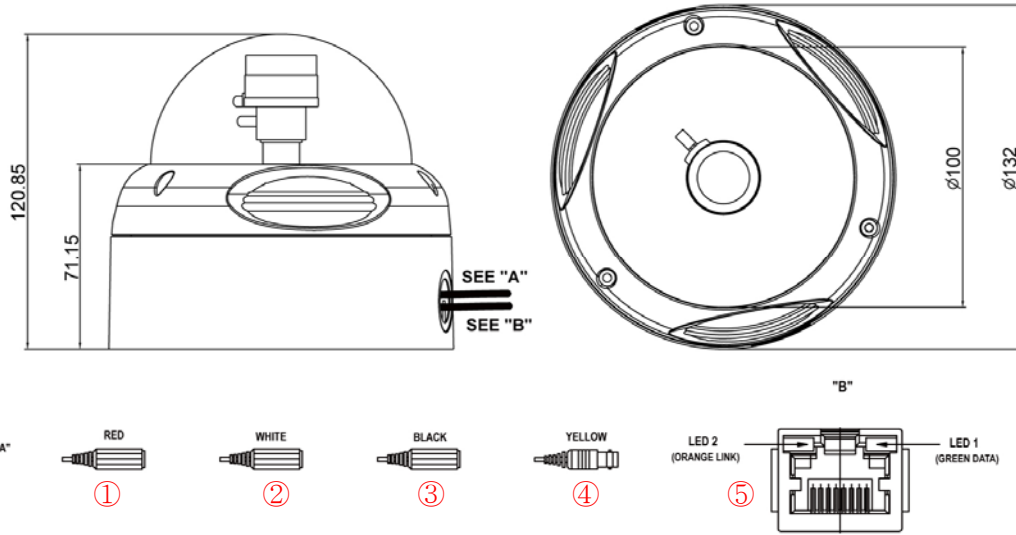
3. **SIPD4**

4.   SIPT5

5. SIPSD10X

ø157
ø126
42
98
ø100

WHITE ②
BLACK ③
LED 2 (ORANGE LINK) ⑤
LED 1 (GREEN DATA

N/A — D −
VIDEO OUT (to MONITOR) — D +
④
DC 12V IN — VIDEO
① GND
POWER

GND
1
2
3
4
ALARM (No Network Support)

⑩
⑥
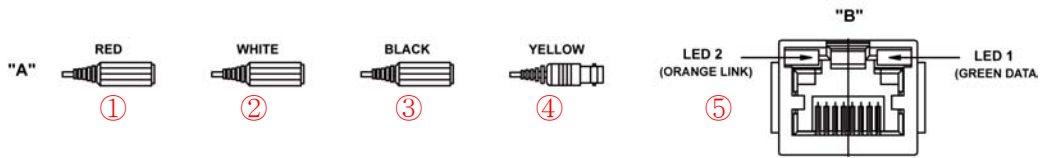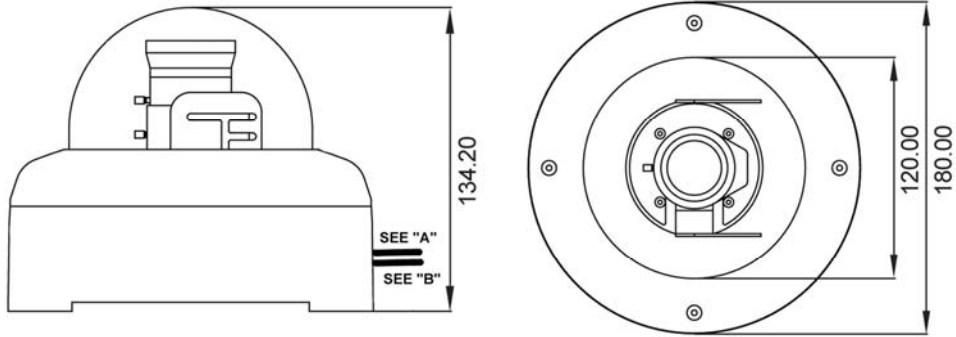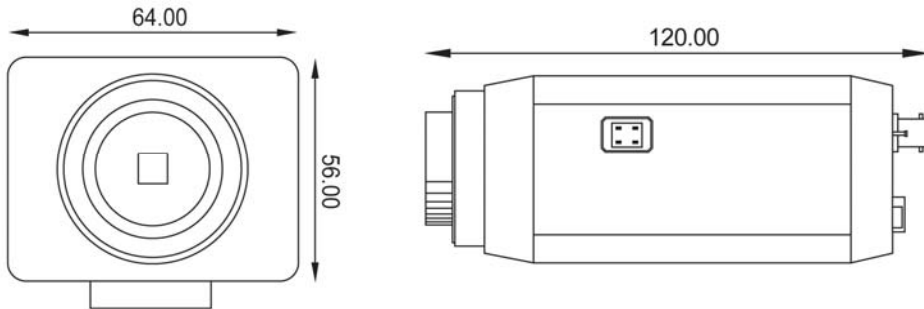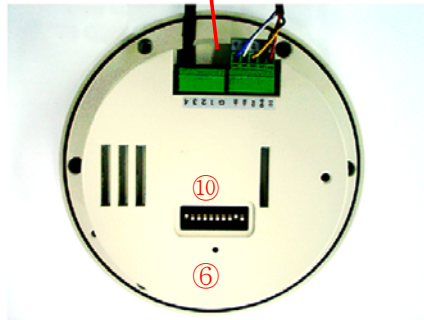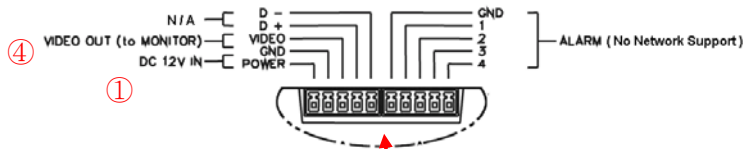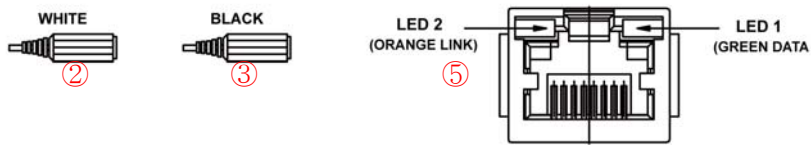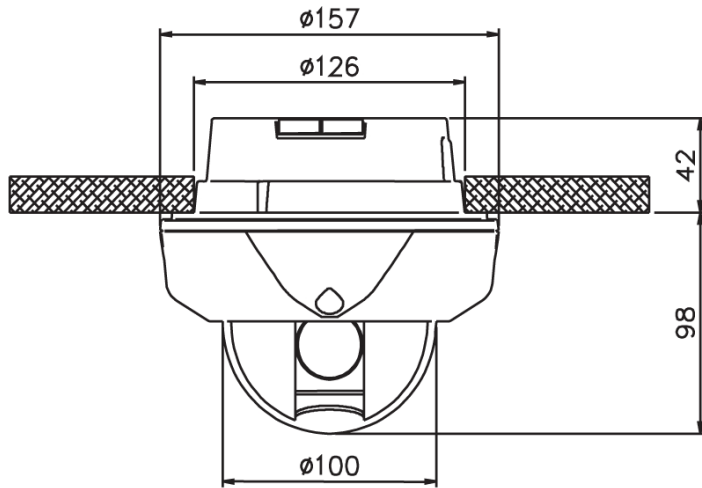
6. SIPMPB
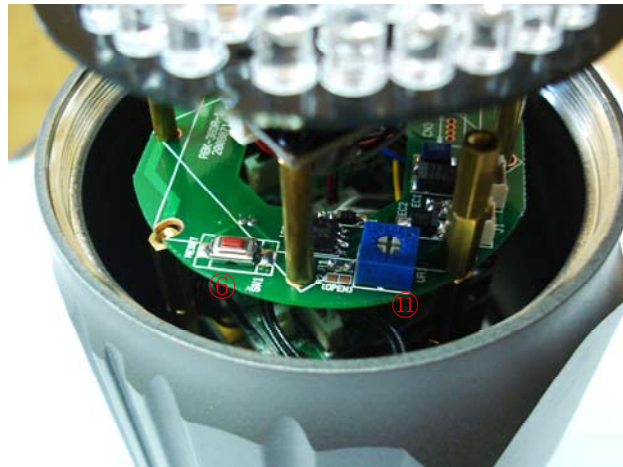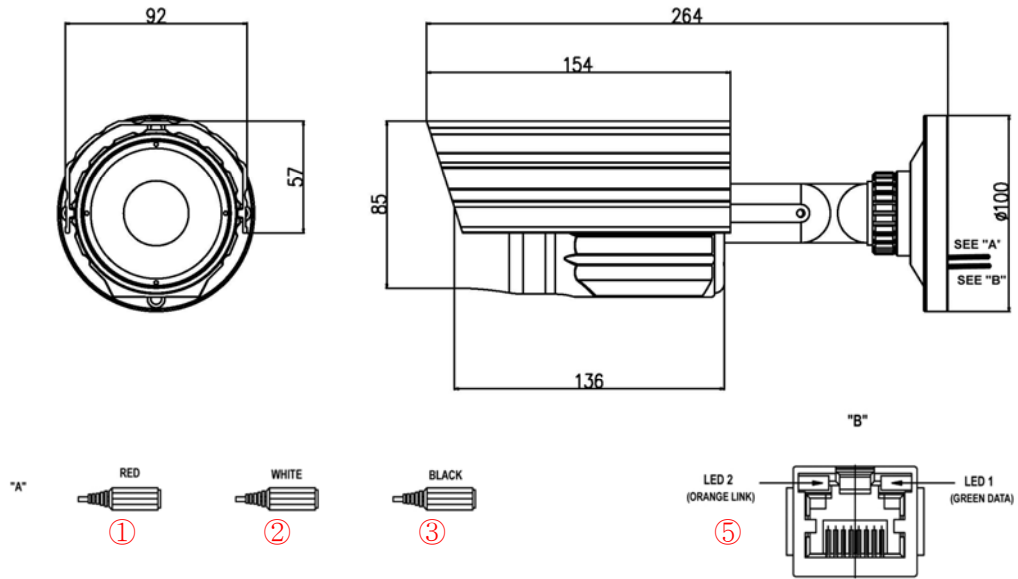
7. SIPMPD
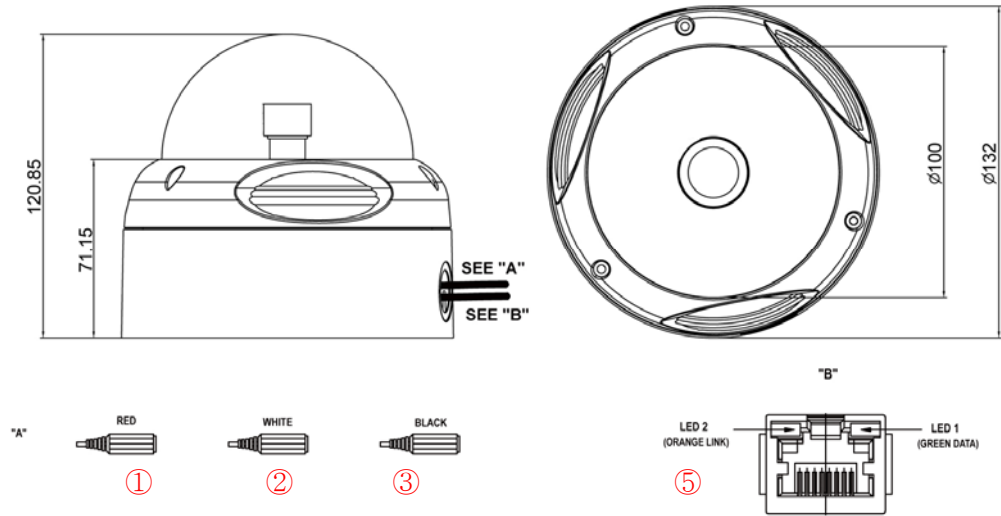
8. **SIPMPT**
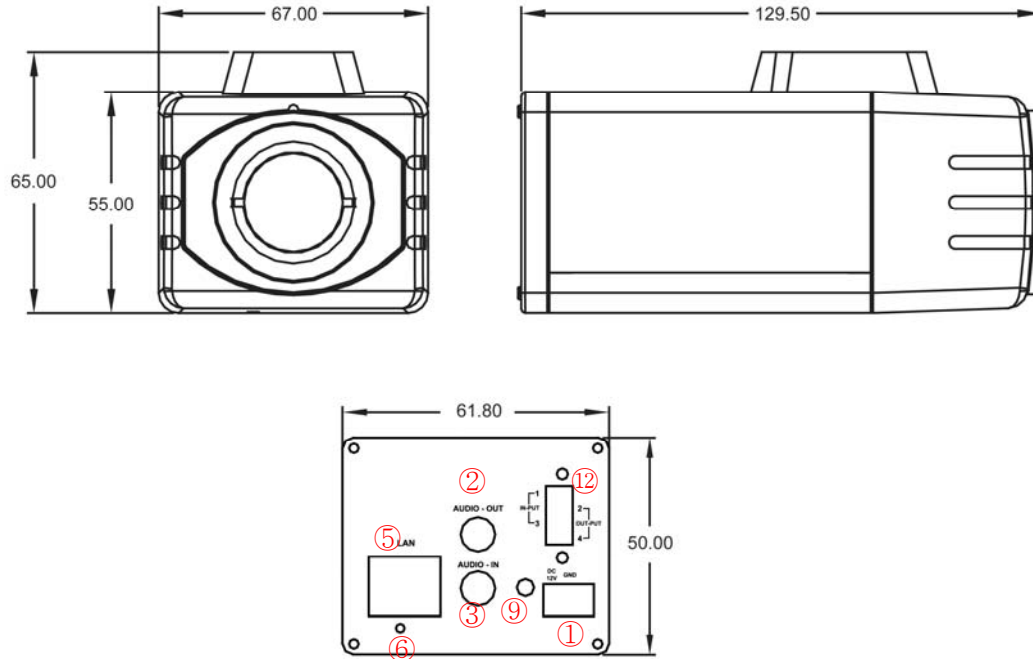
1.2.2   Connector Description

① **12 Volts DC Power Input**

② **Audio Output**

③ **Audio Input :** The SIP Camera supports one audio input and output

④ **Video Output :** The SIP Camera supports one analog video output with BNC connector.(** Not available on the megapixel series)

⑤ **Ethernet Port   :** Standard RJ45 connector. Supporting POE. (** Built-in Power Over Ethernet except the SIPSD10X speed domes)

⑥ **Reset Button (** Please open the case for the Bullet / Dome type camera)

Step 1 : Switch off SIP Camera by disconnecting the power cable.

Step 2 : Using a suitable pointed object, press and continue to hold the Reset Button. While continuing to hold the reset button, reconnect the power cable.

Step 3 : Keep holding the reset button for 6 seconds, release the reset button. The unit will start up with factory default settings.

⑦ **Video test port** : Second Video Test output

⑧ **OSD control joystick**

⑨ **Action LED Indicator :** The LED will light up after SIP Camera has successfully completed the boot process.

⑩ **DIP Switch (Baud rage & Address setting) :**

Please refer to the 2.4.5 for more descriptions

⑪ **LED Light level controller**

⑫ **Digital Input / Transistor Output**

2 INSTALLATION

2.1   Minimum System Requirements

CPU	Pentinum 4 2.4GHz and above
Hard Disk	40 GB or above
Memory	256 MB or above
Operating System	Windows XP with SP2 or above
Video Resolution	SVGA or XGA with 1024x768 resolution

2.2   Preparation before setup

To configure your IP device, you have to use Internet Explorer to log in. Before that, your PC's network settings and the IP device's IP address must be set up. Make sure all the connections are connected correctly, and then follow the procedures below.

1. **Setup your PC network**
   You have to match your PC's TCP/IP setting with the IP device's default settings before you can use IE browser to login it. This section tells you how to setup your PC's TCP/IP settings.
2. **Setup IP device's IP address**
   This IP device's IP address can be setup manually or automatically by network service (DHCP). If it acquires the IP address by using the DHCP service, please use the IP utility software bundled in the product CD to search all the IP devices' IP address.

2.2.1   Setup your PC network

To set up the network of IP device via a PC, you have to change the TCP/IP settings of the PC.

The following are the default network settings of IP device.

> IP Address: 192.168.0.100
>
> Subnet Mask: 255.255.255.0

To access the IP device, the IP address of the PC should match the address below.

> IP Address: 192.168.0.xxx
>
> Subnet Mask: 255.255.255.0

⚠️ **NOTE: xxx** should be a number from 1 to 254, but 100 is excepted.

The procedure below is the setup procedure of a PC using Windows XP as its OS. When running an OS other than Windows XP, please refer to the manual included with the OS.

- **STEP 1**

  Start up your PC.

- **STEP 2**

  Click the [Start] and select the "Control Panel"
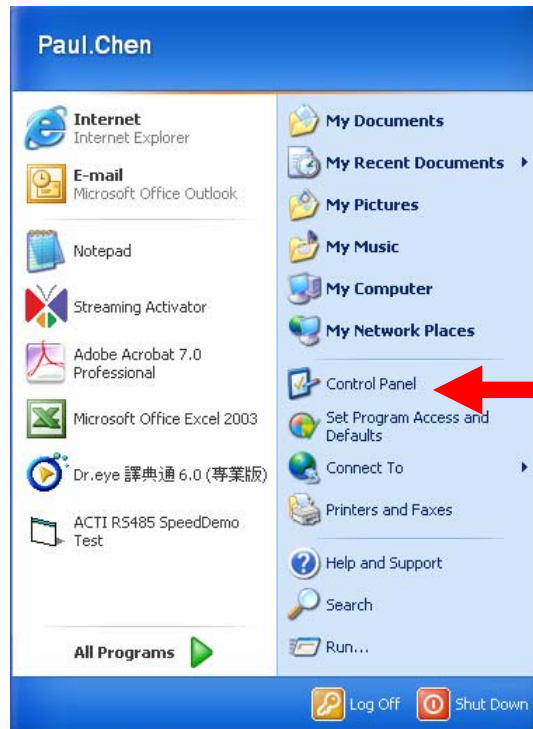
● **STEP 3**

Double-click the "Network and Internet connections" icon.
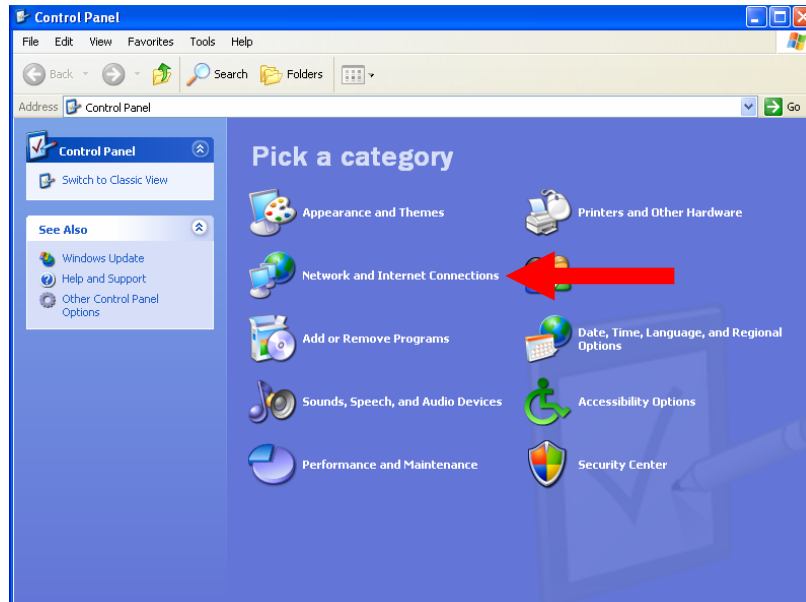
● **STEP 4**

Double-click the "Network connections" icon
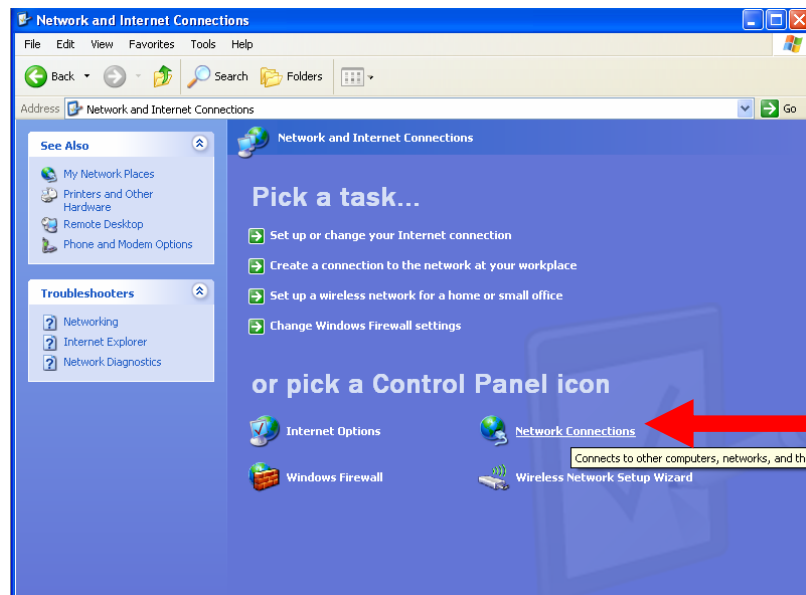
- **STEP 5**

  Click "Local Area Connections", and then click "Change settings of this connection" in the network Task menu.
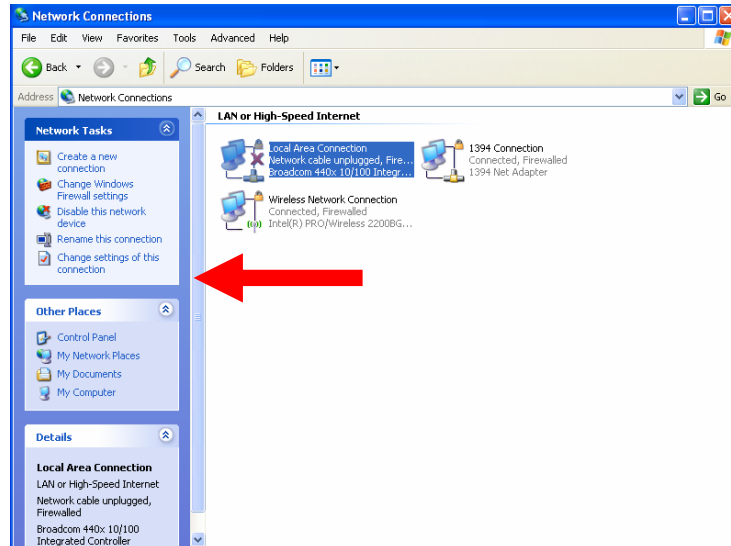
- **STEP 6**

  Click "Internet Protocol (TCP/IP)", and then click the [Properties] button.

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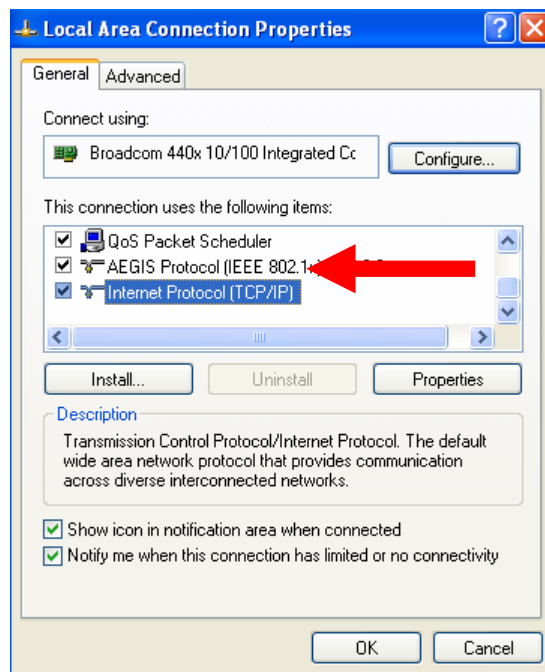
● **STEP 7**

Click the "Use the following IP address" radio button and enter the IP address and the subnet mask.
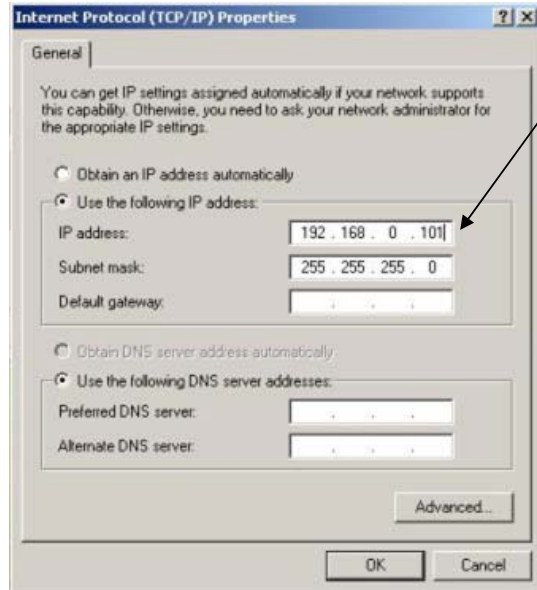
Please set the settings as below.

IP address: 192.168. 0.xxx
Subnet mask: 255.255.255. 0

(**NOTE**: xxx should be a number from 1 to 254, but 100 is excepted.)

● **STEP 8**

Click the [OK] button and the window dialog box closes.

2.3 Configuring the IP device

This section describes how to configure the IP device. The product administrator has unlimited access to all setup windows and normal users can only watch the live image. The IP device is configured under a standard browser (Microsoft Internet Explorer 6.0 or above).

Follow the procedures below to configure the IP device.

- **STEP 1:** Open a browser

- **STEP 2**: Enter the IP address of the IP device.

  The default IP address is "192.168.0.100"

  The "Login Page" is now displayed as below.
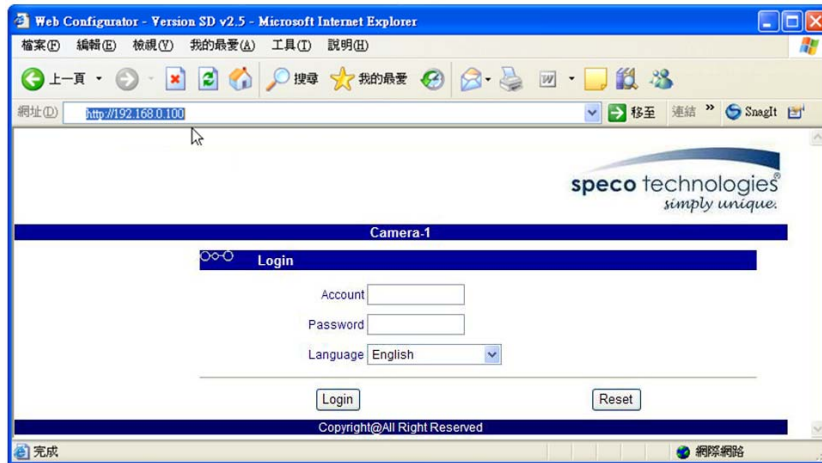
- **STEP 3:** Enter the Account name (factory default: Admin) and the Password (factory default: 123456).

> **NOTE:** Internet Explorer of 6.0 or above is highly recommended. If you don't have the it, please download it from http://www.microsoft.com/windows/ie/downloads/default.mspx

- **STEP 4**: Select the language of the IP device user interface. You can select from English, Traditional Chinese, Simplified Chinese, Japanese, Spanish, Italian, German, Portuguese,Czech and French. This user interface setting will disappear once you log out, if you want to change the default user interface language, please change the setting of [Host setting] after login successed.

- **STEP 5**: Click the Login button to login or click the Reset button to re-enter again.

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Once successfully login, the "Video Display page" will be displayed as below.
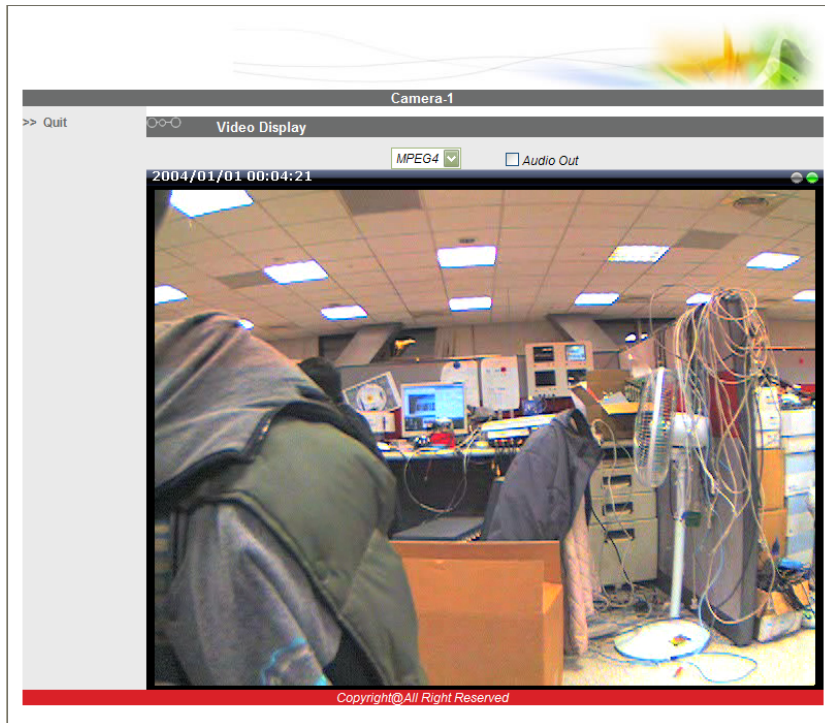
2.3.1   Video Display

This section tells you how to view live images via Internet Explorer.

● **STEP 1**: Click the [Video Display] on the "Main Setup page".

The "Video Display page" is displayed as below.
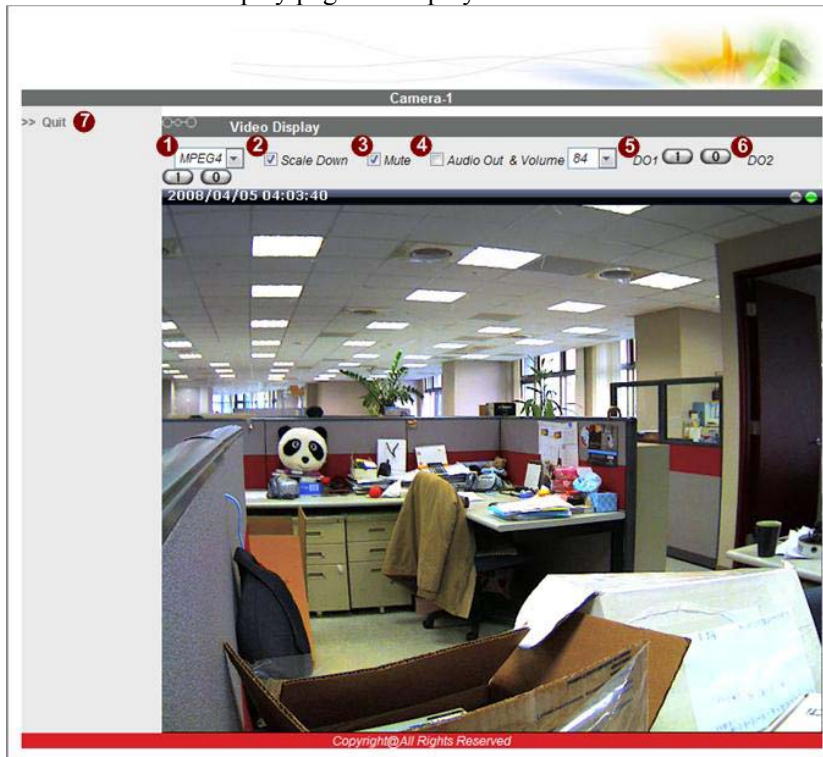
● **STEP 2**: Check the ❶ [MPEG4/MJPEG] to select the Compression type. Once selected, the video server/IP camera will start to stream with new compression type.

● **STEP 3**: Click the ❷ [Scale Down] checkbox to scale down the SXGA(1280x1024)/720P(1280x720) to VGA resolution.

● **STEP 4**: Check the ❸ [Mute] checkbox to mute or display audio from the video server/IP camera.

● **STEP 5**: Click the ❹ [Audio Out] checkbox to enable/disable audio transmission from this PC to IP device's audio out and change audio out volume. Ex: while this function enabled you can talk to the people at the IP device site.

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- **STEP 6**: Click the ⑤ [DO1] Button of trigger / dis-trigger DO function by DO1.

- **STEP 7**: Click the ⑥ [DO2] Button of trigger / dis-trigger DO function by DO2.

- **STEP 8:** Click the ⑦ [Quit] to exit the live view and return to "Main Setup page".

⚠	**NOTE:** If the streaming is disabled, you cannot see the live images here.
⚠	**NOTE:** Be sure to set the Network Connections Type to Auto Negotiation to respective apparatus connected to this IP device via network. Otherwise, the maximum transmission performance might not be achieved. This is because the IP device follows MII standard.

2.3.2 Host Setting

This section tells you how to setup IP device's host settings and LAN settings.

- **STEP 1**: Click the [Host Setting] on the "Main Setup page".

   The "Host setting page" is displayed as below.

- **STEP 2:** Configure these settings with reference to the table below. If you are still unsure what to set, contact your system administrator.

■Host Setting

Parameters	Description
❶ Host name	Enter a host name, and this host name will be shown when you use the IP utility or the SDK to search for the IP device.
❷ Language	Select the language of default user-interface. Each user login will see the default user-interface first.

■Network link speed & duplex

Parameters	Description
⑤ WAN port	This item lets you select the network transmission speed of WAN port. You can select from 1. **Auto detect** (default setting) 2. **100Mbps / Full duplex** 3. **100Mbps / Half duplex** 4. **10Mbps / Full duplex** 5. **10Mbps / Half duplex**

■Port Mapping

Parameters	Description
⑥ TOS (type of service)	Select whether to add the TOS tag onto the streaming data. Streaming data with a higher priority TOS tag will be transmitted first while compared with other data to be transmitted.
⑦ TOS priority	Select the TOS tag's priority to be added onto the streaming. You can select between 1. **Normal-Service** 2. **Minimize-Cost** 3. **Maximize-Reliability** 4. **Maximize-throughout** 5. **Minimize-Delay**

■ToS (Type of Service)

Parameters	Description
⑧ HTTP port	Select the port for this IP device to use HTTP protocol.
⑨ Search server port1	Select the port1 for this IP device to support search function of the application program (e.g. IP utility).
⑩ Search server port2	Select the port2 for this IP device to support search function of the application program (e.g. IP utility).

● **STEP 3**: Click the ❸ [Apply] button of each setting to confirm the settings or click the ❹ [Reset] button to re-enter the parameters.

⚠ **NOTE:** Once finished all settings, be sure to click the [Save Reboot] button, otherwise, some settings won't take effect.

⚠ **NOTE:** Check with your system administrator, if Client PC and IP device are setting in different VLANs, please connect to WAN port.

⚠ **NOTE:** Be sure to set the Network Connections Type to Auto Negotiation to respective apparatus connected to this IP device via network. Otherwise, the maximum transmission performance might not be achieved. This is because the IP device follows MII standard.

2.3.3　WAN Setting

This section tells you how to setup IP device's WAN, DNS server and DDNS server settings.

- **STEP 1**: Click the [WAN Setting] on the "Main Setup page".

    The "WAN setting page" is displayed as below

- **STEP 2**: Configure these settings with reference to the table below. If you are still unsure what to set, contact your system administrator.

■WAN Setting

Parameters	Description
❶ Dynamic IP address	Click this to enable IP device's DHCP function. It will acquire its WAN port IP address from a DHCP server within the same network. (You must have a DHCP server in order to enable this function.)
❷ Static IP address	Click this to manually enter the IP device WAN port IP address. ❸**IP address**: Enter the WAN port IP address. ❹**Subnet mask**: Enter the subnet mask of WAN port. If IP address is changed, adjust the subnet mask accordingly. ❺**ISP gateway**: Enter the IP address of the gateway (the router).
❻ PPPoE	Click this when you connect IP device directly to the xDSL modem. ❼**User name**: Enter the user name of your xDSL account. ❽**Password**: Enter the password of your xDSL account. **Note**: You have to click the [Save Reboot] after you click the [Apply button] to let this IP device start xDSL connections.

■DNS server Setting

Parameters	Description
⑪ Primary DNS server	Defines the IP address of the primary DNS server. This is used for identifying this computer by name instead of IP address.
⑫ Secondary DNS server	The IP address of the secondary DNS server. It will be used once the primary DNS server fails.

■DDNS server Setting

Parameters	Description
⑬ DDNS type	Click this to enable IP device's DDNS function. DDNS function enables user to connect to this IP device by domain name even if its IP address is not static.
⑭ Service ISP	Click one of the DDNS service providers. You can visit their website to get a DDNS service account for this IP device.
⑮ Host name	Enter the host name of your DDNS service account. (ex: xxxx.dyndns.org)
⑯ User name	Enter the user name to login your DDNS service account.
⑰ Password	Enter the password to login your DDNS service account.

- **STEP 3**: Click the ⑨ [Apply] button of each setting to confirm the settings or click the ⑩ [Reset] button to re-enter the parameters.

⚠️ **NOTE:** Check with your system administrator, if Client PC and IP device are setting in different VLANs, please connect to WAN port.

⚠️ **NOTE:** Once finished all settings, be sure to click the [Save Reboot] button, otherwise, some settings won't take effect.

⚠️ **NOTE:** Be sure to set the Network Connections Type to Auto Negotiation to respective apparatus connected to this IP device via network. Otherwise, the maximum transmission performance might not be achieved. This is because the IP device follows MII standard.

2.3.4 Date Setting

This section tells you how to setup IP device's date and time settings.

● **STEP 1**: Click the [Date Setting] on the "Main Setup page".

The "Date setting page" is displayed as below

● **STEP 2**: Configure these settings with reference to the table below. If you are still unsure what to set, contact your system administrator.

■**Date Setting**

Parameters	Description
❶SNTP/NTP server	Click this to enable IP device's SNTP/NTP function. SNTP/NTP function enables this video to synchronize its time settings with a SNTP/NTP server. You can use this function to make sure all your IP devices' time is the same. Additionally, with our embedded digital-time-code in the streaming, you can tell the event sequence accurately. ❷**IP address**: Enter the IP address of the SNTP/NTP server. ❸**Sync time**: Select the time interval for this IP device to synchronize its time.
❹Set manually	Click this to manually setup the date & time. ❺**Date** : Select the date ❻**Time**: Select the time
❼Time zone	Select the time zone offset for local settings
❽Day Light Saving	❾ Select Type 1 to specify daylight saving time by week

	number in a month; select Type 2 to specify daylight saving time by date.
	⑩**Start Time** : Select the daylight savings start time.
	⑪**End Time** : Select the daylight savings end time.

● **STEP 3**: Click the ⑫ [Apply] button of each setting to confirm the settings or click the ⑬ [Reset] button to re-enter the parameters.

⚠ **NOTE:** Once finished all settings, be sure to click the [Save Reboot] button, otherwise, some settings won't take effect.

Manually set date and time will be gone, if power off.

2.3.5   Video Setting

This section tells you how to setup IP device's video and streaming settings.

- **STEP 1**:   Click the [Video Setting] on the "Main Setup page".

    The "Video setting page" is displayed as below

■**Video setting**

Parameters	Description
❶ Camera name	The camera name is reserved for customer use.
❷ Streaming Method	Select the streaming mode. 1. **TCP only** 2. **Multicast only** 3. **RTP Over UDP** 4. **RTP Over Multicast** 5. **RTP Over UDP & Multicast**
❸ RTSP Authen Enable	Checkbox to enable RTP streaming's Account/Password authentication.

④	RTP B2 Frame Enable	Checkbox to enable the B2 frame in RTP streaming
⑤	Audio	Select enable or disable the audio function.
⑥	Input Sensitivity	Select HIGH or LOW of the audio input sensitivity
⑦	Multicast IP	Select the multicast IP. Default settings is 228.5.6.1
⑧	Multicast TTL	Select the multicast TTL. Default setting is 255.
⑨	IGMP	Select video type connected to the video-in of this IP device. If you use an incorrect video type, some images might be lost.
⑩	Resolution	Select the video resolution of the IP device.

⑪	Frame rate mode	Select the frame rate mode.
		    Constant: The streaming's frame rate remains constant at all conditions.
		    Variable: The streaming's frame rate will variants according to the images variability to keep the image quality good.

⑫	Frame rate	Select the frame rate of the video streaming.

⑬	Encoder Type	Select the encoder's compression type.
		    1. MPEG4
		    2. MJPEG

⑭	Video Bitrate Mode	Select the video bitrate mode.
		    Constant Bit Rate: The streaming's bitrate remains constant at all conditions.
		    Variable Bit Rate: The streaming's bitrate will variants according to the images variability to keep the image quality good.

⑮	Video Maximum Bitrate	Select the Maximum bitrate of the video straming. Designating a limited bit rate may reduce frame rate. Doing so will also disable Bit Rate setting below.
⑯	Bitrate	Select the bit rate of the video streaming. You can select from 28Kbps to 3Mbps. **Note**: Lower bit rate consumes less bandwidth but delivers lower quality images. High bit rate consumes more bandwidth but delivers higher quality images.
⑰	Serial Port Baud Rate	Select the Baud Rate setting of serial port.
⑱	Serial Port Control	Select the Control setting of serial port.
⑲	RTSP port	Select the port for this IP device to support RTSP
⑳	Video RTP Over Multicast	Enable/disable the multicast video streaming via RTP protocol
㉑	Audio RTP Over Multicast	Enable/disable the multicast audio streaming via RTP protocol
㉒	Video control port	Select the port for this IP device to support video control function of the application program.
●	Video streaming port (TCP Only)	Select the port for this IP device to support video streaming function of the application program.
●	Video multicast port (Multicast	Select the port for this IP device to support video multicast function of the application program.

Only)	

STEP 3: Click the [Apply] button of each setting to confirm the settings or click the [Reset] button to re-enter the parameters.

2.3.6   Video Adjustment

This section tells you how to adjust the streaming video.

● **STEP 1**: Click the [Video Adjust] on the "Main Setup page".

The "Video adjust page" is displayed as below
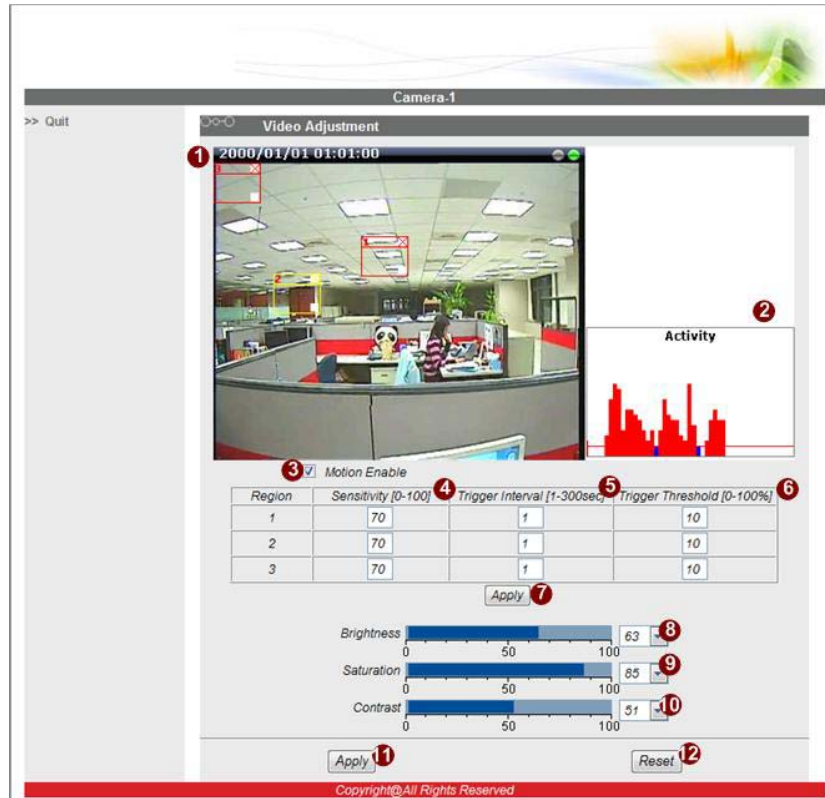
● **STEP 2**: Set the ❸ checkbox to enable motion detection function.

● **STEP 3**: Set the ❹ sensitivity of motion detection windows.

● **STEP 4**: Set the ❺ interval time of motion detection. . Within the interval time after the motion event is triggered, no motion event will be triggered.

● **STEP 5**: Set the ❻ trigger threshold of motion detection windows.

● **STEP 6**: In motion activity window ❷, the bar shows the motion activity status. You can also see the trigger threshold (Red line). When the motion activity exceeds the trigger threshold, the bar would become red to indicates an motion event is triggered. While viewing at

the motion activity window, you can adjust the motion sensitivity (for more or less activities to be triggered) and the threshold (for how much activity would trigger a motion event. If you are not sure, recommend you to set

    a. Sensitivity: 80, Threshold: 2~5   (for normal environment)

    b. Sensitivity: 80, Threshold: 5~10 (for very noisy environment)

- **STEP 7**: When satisfied with the motion settings, click the ❼ [Apply]

- **STEP 8**: Adjust the video by changing the value of ❽ "Brightness", ❾ "Saturation" and ❿ "Contrast". See the images displayed above for the effect of the current setting.

- **STEP 9**: When satisfied with the video settings, click the ⑪ [Apply] button of each setting to confirm the settings or click the ⑫ [Reset]

⚠️ **NOTE:** Once finished all settings, be sure to click the [Save Reboot] button, otherwise, some settings won't take effect.

⚠️ **NOTE:** You may find a support package for helping you on better video quality adjustment. Please visit our web site, and get the support document TS-00103.

2.3.7 Camera Setup

This section tells you how to adjust the camera.

- **STEP 1**: Click the [Camera Setup] on the "Main Setup page".

The "Camera Setup page" is displayed as below

■**Camera setting**

Parameters	Description
❶ Video Flipping	Checkbox to flip the video.
❷ Video Mirror	Checkbox to mirror the video.
❸ Lens Compensation	Checkbox to load the best video setting for bundled lens.
❹ NightTime Gain Threshold	Select the nighttime gain threshold.
❼ White Balance Mode	Select the white balance mode. After you set the parameter, you need to wait for 5~10seconds to see the final result. 1. AUTO : Auto white balance (default) 2. INDOOR1: Select the indoor white balance profile

|		
		1.
		3. INDOOR2: Select the indoor white balance profile 2.
		4. OUTDOOR1: Select the outdoor white balance profile 1.
		5. OUTDOOR2: Select the outdoor white balance profile 2
		6. HOLD CURRENT: Select this to let the IP camera automatically obtain a best white balance setting according to current environment. The IP camera will use this setting to adjust color. NOTE: This setting will be lost after you reboot the camera.
		7. MANUAL: Select this to enable manual setting of the white balance. You will need to enter the R Gain and B gain setting below.
⑧	R Gain (Manual White balance mode only)	Add or decrease redness to the video when under Manual White Balance mode. (This function is only available in Manual White balance mode.)
⑨	B Gain (Manual White balance mode only)	Add or decrease blueness to the video when under Manual White Balance mode. (This function is only available in Manual White balance mode.)
⑩	Exposure mode	Select exposure mode to auto or manual. - Auto: The IP camera will adjust the exposure automatically. - Manual: (In Manual White balance mode only) Manually select the Exposure Gain and Shutter Speed below.
⑪	Exposure Gain	Select the exposure Gain of the IP camera. The higher the value = brighter images.
⑫	Shutter Speed	Increase or decrease the shutter speed. The closer the number is to 1, the better nighttime performance is, although this also causes motion blur to the video.
●	AGC Gain (In auto Exposure mode only)	When exposure mode is auto, IP camera will adjust its shutter speed according to AGC gain and the Maximum auto shutter speed. Higher AGC gain = brighter images.
⑬	Maximum Auto Shutter Speed (In auto Exposure mode only)	When exposure mode is auto, IP camera will adjust its shutter speed according to AGC gain and the Maximum auto shutter speed. This setting is to set the maximum shutter speed range of this camera.
⑭	Flickless Mode	Change settings between 60Hz or 50Hz, depending on the AC power type of your region.

STEP 2: Click the ❺ [Apply] button of each setting to confirm the settings or click the ❻ [Reset] button to re-enter the parameters.

2.3.8   Camera Setup (PTZ camera model)

This section tells you how to adjust the camera.

- **STEP 1**: Click the [Camera Setup] on the "Main Setup page".

The "Camera Setup page" is displayed as below

■**Camera setting**

Parameters	Description
❶ Video Flipping	Checkbox to flip the video.
❷ Video Mirror	Checkbox to mirror the video.
❸ BLC	Checkbox to enable/disable back light compensation.
❹ White Balance Mode	Select the white balance mode. After you set the parameter, you need to wait for 5~10seconds to see the final result. 1. AUTO : Auto white balance (default) 2. HOLD CURRENT: Select this to let the IP camera automatically obtain a best white balance setting according to current environment. The IP camera will use this setting to adjust color. NOTE: This setting will be lost after you reboot the camera. 3. MANUAL: Select this to enable manual setting of the white balance.

⑤ Exposure mode	Select exposure mode.	
	- Auto: The IP camera will adjust the exposure automatically.	
	- Shutter Priority: The IP camera will adjust the exposure by shutter priority first.	
	- Iris Priority: The IP camera will adjust the exposure by Iris priority first.	
	- Manual: Manually select the Exposure Gain and Shutter Speed below.	
⑥ AGC Gain	When exposure mode is auto, IP camera will adjust its shutter speed according to AGC gain and the Maximum auto shutter speed. Higher AGC gain = brighter images.	
⑨ Auto IRIS Level	Select the Iris level.	
⑩ Sense up Level	Select the sense up level.	
⑪ Light Sensor Mode	Select light sensor mode.	
	- Auto: The IP camera will auto switch day or night mode.	
	- Day: The IP camera will always day mode.	
	- Night: The IP camera will always night mode.	
⑫ NightTime Gain Threshold	Select the nighttime gain threshold.	

STEP 2: Click the ⑦ [Apply] button of each setting to confirm the settings or click the ⑧ [Reset] button to re-enter the parameters.

2.3.9　PTZ (PT/TZ Camera only)

This section tells you how to adjust the camera.

● **STEP 1**: Click the [PTZ] on the "Main Setup page".

The "PTZ page" is displayed as below
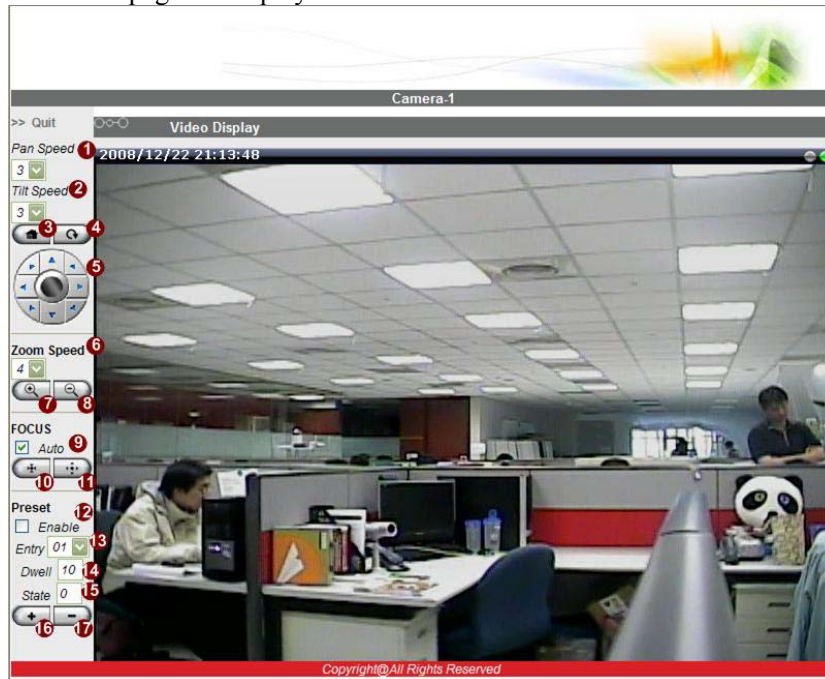
■**Camera setting**

Parameters	Description
❶ Pan Speed	Select the pan speed.
❷ Tilt Speed	Select the tilt speed.
❸ Home	Click the button of go to home function.
❹ Reset	Click the button of reset the pan/tilt/zoom function.
❺ PT Control	Click the each button of pan and tilt control.
❻ Zoom Speed	Select the zoom speed
❼ Zoom In	Click the button of zoom in.
❽ Zoom Out	Click the button of zoom out.
❾ Auto Focus	Checkbox to enable/disable auto focus function.
❿ Focus In	Click the button of focus in.
⓫ Focus Out	Click the button of focus out.

⑫ Auto Pan Enable	Checkbox to enable/disable auto pan function.	
⑬ Entry	Select the preset number	
⑭ Dwell	Setting the delay time of auto pan function.	
⑮ State	Preset state of enable or disable.	
⑯ Add Preset	Click the button of add preset number.	
⑰ Del Preset	Click the button of del preset number.	

2.3.10 User Account Management

This section tells you how to setup accounts.

● **STEP 1**: Click the [User account] on the "Main Setup page".

The "Account management page" is displayed as below

● **STEP 2**: Setup the account names and their respective passwords.
There are ❶1 root (administrator) account and ❷10 common user accounts. Administrator account allows the user to watch the live view and setup everything; but common user account allows user only to watch the live image.

● **STEP 3**: Click the ❸[Apply] button of each setting to confirm the settings or click the ❹[Reset] button to re-enter the parameters.

⚠️ **NOTE:** Once finished all settings, be sure to click the [Save Reboot] button, otherwise, some settings won't take effect.

2.3.11 System Info

This section tells you how to see the system information of this IP device including system information, WAN status and system log.

● **STEP 1**: Click the [System info] on the "Main Setup page".

The "System information page" is displayed as below
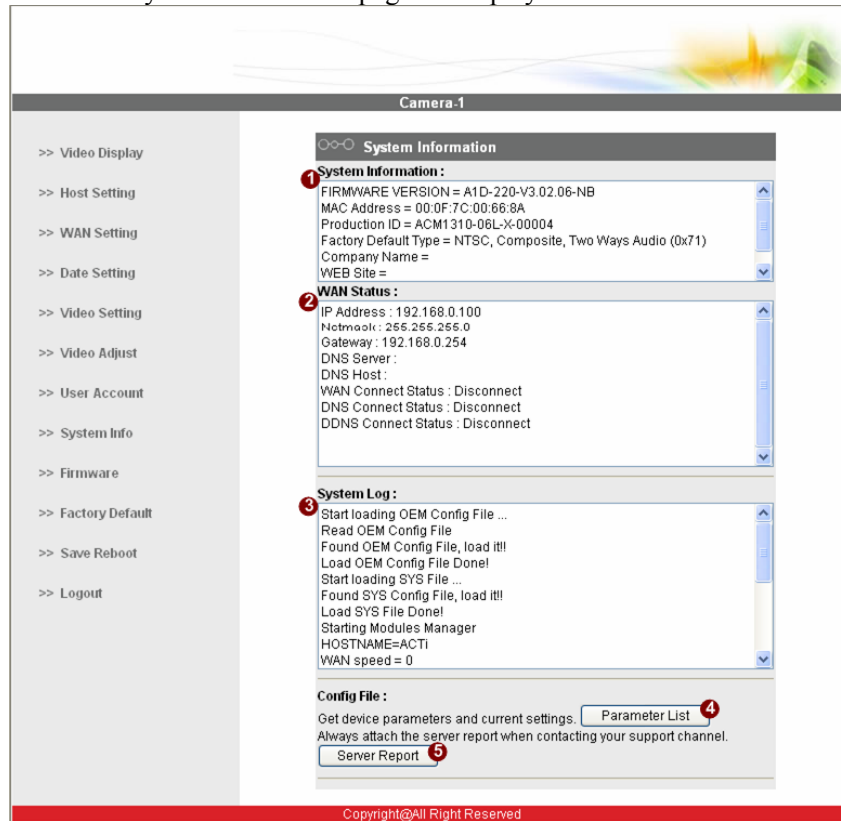
● **STEP 2**: View the information at the 3 columns. This information is very useful to understand the IP device status and to resolve any problem that might occur.

■**System info**

Column	Description
❶ System info	It shows the firmware version, MAC address, production ID, and factory default type of IP device.
❷ WAN status	It shows the WAN port's IP address, netmask, gateway, DNS server, DDNS host and connection status.
❸ System log	It shows the system event. This column is very useful to as a diagnostic tool.

- **STEP 3**: Click ④ [Parameter List] where you may see all configurations of the IP device.

- **STEP 4**: Click ⑤ [Server Report] to export related information of the IP device while reporting a support to your support channel.

2.3.12 Firmware Upgrade

This section tells you how to see update IP device's firmware. You can always visit our web site for the latest firmware.

● **STEP 1**: Click the [Firmware] on the "Main Setup page".

The "Firmware upgrade page-1" is displayed as below
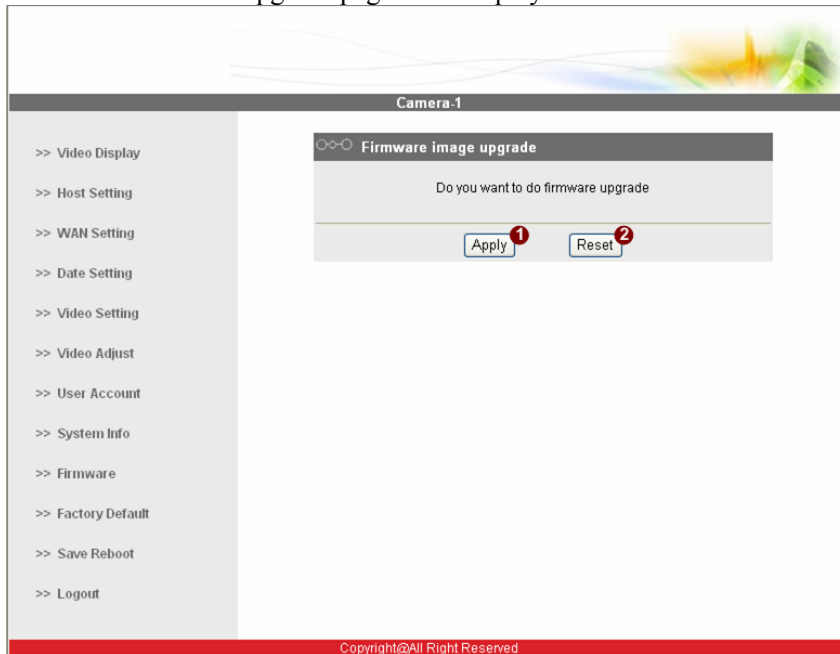
● **STEP 2**: Click ❶[Apply] button. The ''firmware upgrade page-2" will be displayed as below.

■**Date Setting**

	Parameters	Description
❸	Firmware images file	You can upload the firmware images here. Click the [browse] to select the an image file and click the [enter].

	You can always get the latest version at our website.
④ MD5 file	You can upload the MD5 file here. Click the [browse] to select an MD5 file and click the [enter]. You can always get the latest version at our website.

⚠ **NOTE:** The version of the firmware image and the MD5 file to be uploaded must be the same, otherwise, the firmware upgrading will fail and the IP device will continue using previous firmware version.

●

● **STEP 3**: Click the ❺[Upload] button to start upgrading, or click the ❻ [Reset] to re-select the files, or select ❼ to cancel the process.

● **STEP 4**: The upgrade process window shows a progress bar indicating upgrade status. When the upgrading is completed, the system will reboot.
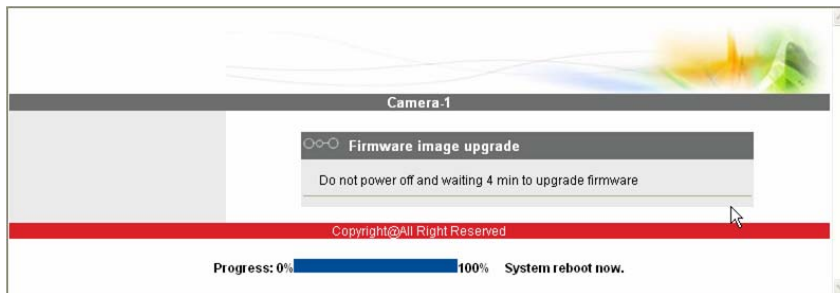
2.3.13 Factory Default

This section tells you how to see load IP device's factory default setting.

● **STEP 1**: Click the [Factory Default] on the "Main Setup page".

The "Factory default setting page" is displayed as below
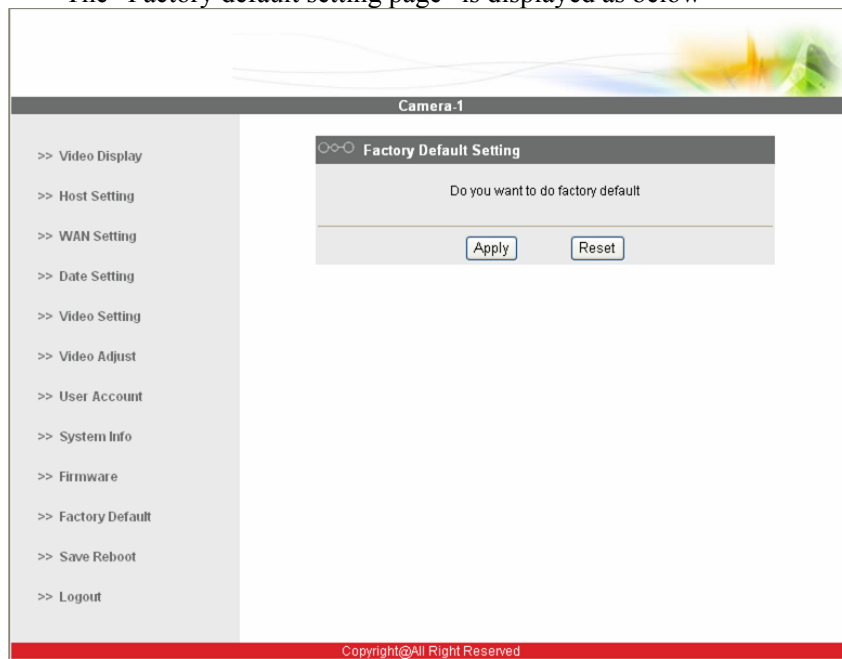
● **STEP 2**: Click the [Apply] button to go to loading confirmation page or click the [Reset] button to exit to previous page.

● **STEP 3**: A confirmation page will be displayed. Click the [Save Reboot] button to start loading factory default settings.

2.3.14   Save Reboot

This section tells you how to save all the settings and reboot this IP device. This is critical because some settings might not take effect before save and reboot.

● **STEP 1**: Click the [Save and reboot] on the "Main Setup page".

The "Save and reboot page" is displayed as below.

● **STEP 2**: The Action LED indicator will light down to indicate that the IP device is rebooting. After around 30 seconds, the Action LED will light up again to indicate that the reboot is completed.

2.3.15   Logout

This section tells you how to logout the IP device. Be sure to logout this IP device once your setting is completed.

● **STEP 1**: Click the [Logout] on the "Main Setup page".

You will logout and return to the "Login Page" displayed as below**.**
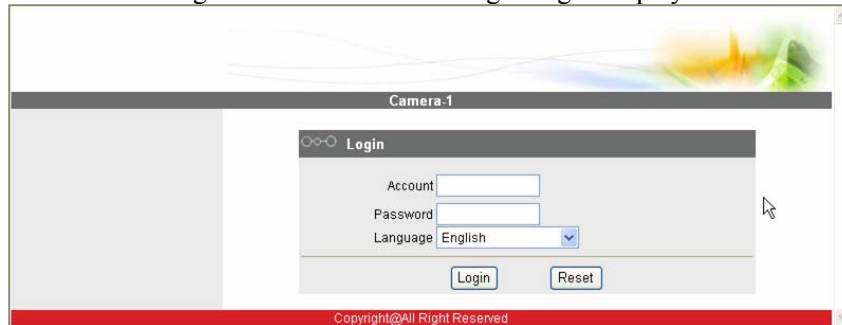
2.4   OSD Setting

2.4.1   Function

SETUP MENU ——————— LENS option

●DC   ●MANUAL

—— SHUTTER

●OFF   ●F/L   ●MANUAL

—— WHITE BALANCE

●ATW   ●AWC   MANUAL●

—— SLC

●OFF   ●LOW   ●MIDDLE   ●HIGH

—— AUTO GAIN

●OFF   ●ON

—— REDUCE NOISE

●OFF   ●LOW   ●MIDDLE   ●HIGH

—— INTENSIFIER

●AUTO   ●OFF

NEXT PAGE

—— ●CAMERA TITLE   ●COLOR   ●SYNC

●PRIVACY   ●MIRROR

●DETAIL   ●DEFAULT   ●PAGE1
—— EXIT

Deleted: <sp>¶

2-47
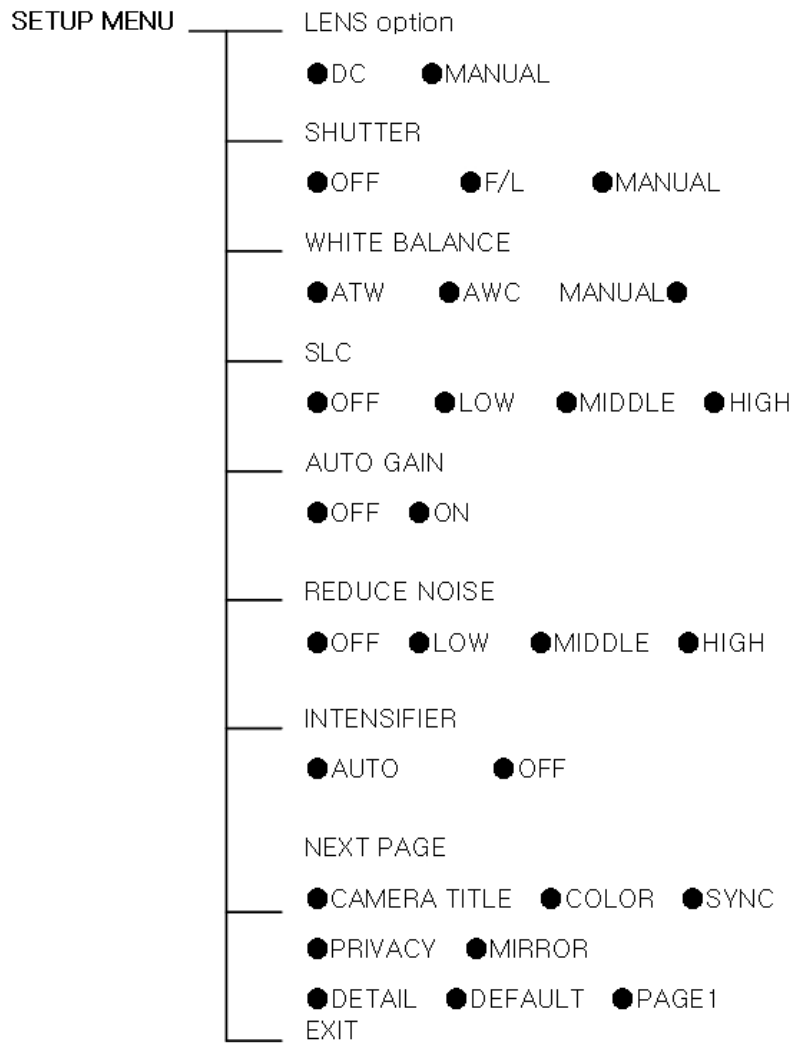
2.4.2   OSD Menu Setting

When you control the OSD by using joystick on the camera, refer to the following (select models only)
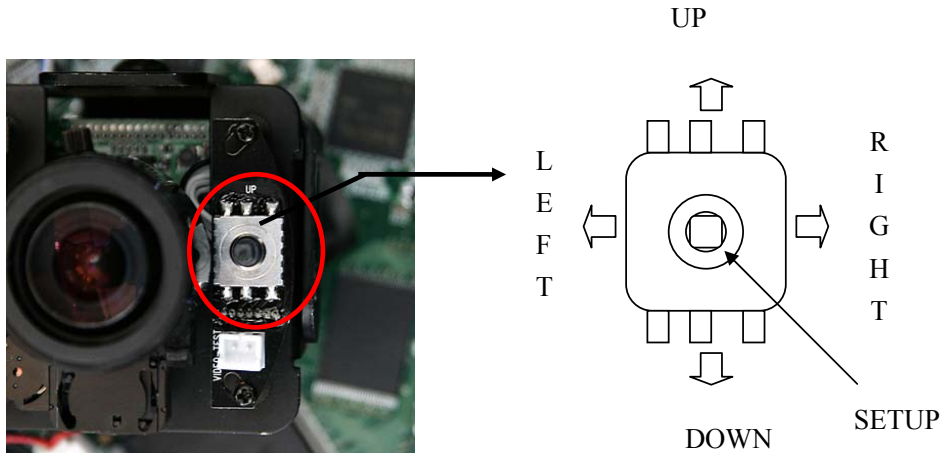
When you control by the five keys on the NVR Software GUI refer to the following
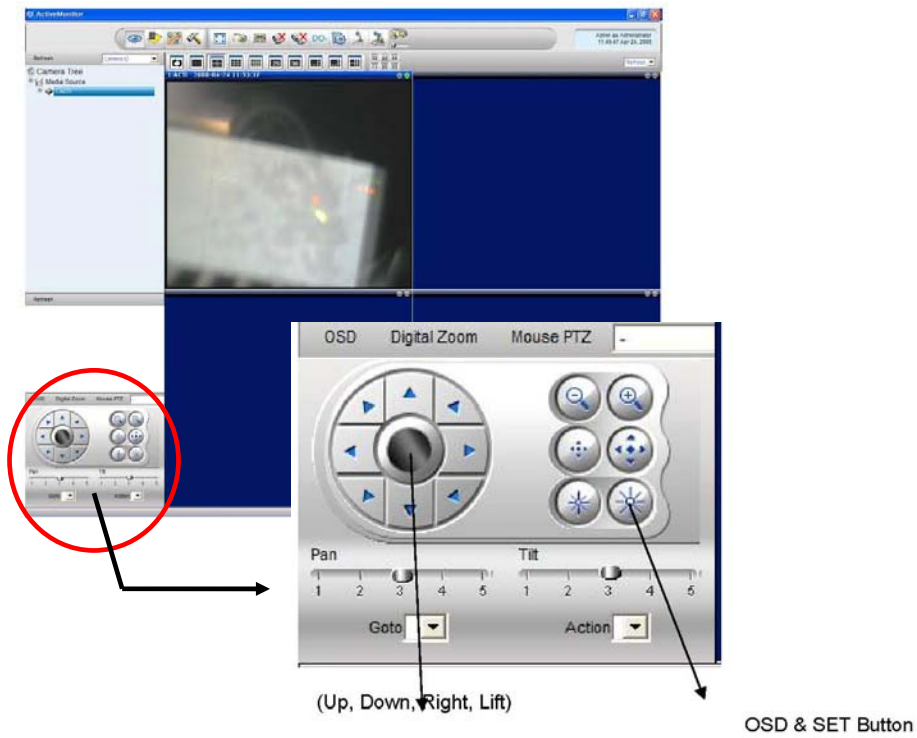
2.4.3 Operating Camera OSD Menu

● **STEP 1**: Press the Set button to access the SETUP mode.

SETUP menu is displayed on the monitor screen.

```
                    SPECO TECH

          ▶ LENS TYPE          DC  IRIS ↵
            SHUTTER TYPE       MANUAL
            WHITE  BAL          ATW
            SLC                 HIGH
            AUTO  GAIN          OFF
            REDUCE NOISE       – – –
            INTENSIFIER        – – –
            NEXT  PAGE ↵
            EXIT
```
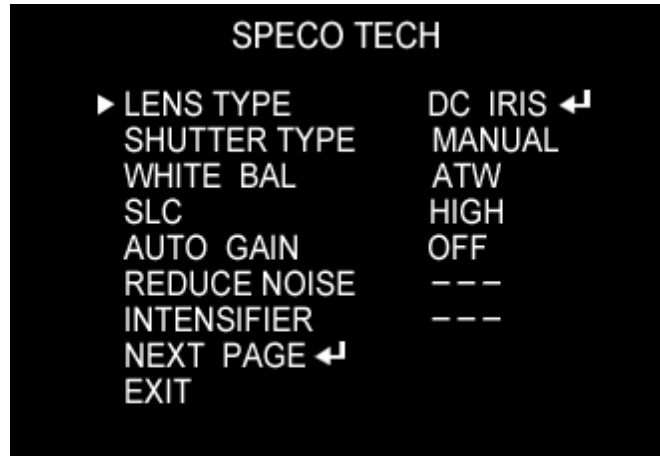
● **STEP 2**: Select the desired feature using the UP or DOWN button.

Each time you press the UP or DOWN button, the arrow indicator
moves up or down.
Move the arrow indicator to the desired feature item.

● **STEP 3**: Change the status of the selected feature using the LEFT or
RIGHT button.

If you press RIGHT or LEFT button, it appears available status.
Press the button when gets desired feature.

● **STEP 4**: When competed, move the arrow indicator to 'EXIT' and
press the SET button.

> ⚠ **NOTE:** You can access submenu using SET button.
> For the mode with '---', you may net access submenu.

1. Setting up the LENS

Select the lens pressing the RIGHT button.

a. On the SETUP menu screen, move the arrow indicator to the lens using the up or Down button.

b. Select the desired feature using the LEFT or RIGHT button.

```
                SPECO TECH

        ▶ LENS TYPE          DC IRIS ↵
          SHUTTER TYPE       MANUAL
          WHITE  BAL         ATW
          SLC                HIGH
          AUTO  GAIN         OFF
          REDUCE NOISE       – – –
          INTENSIFIER        – – –
          NEXT  PAGE ↵
          EXIT
```

```
                SPECO TECH

        ▶ LENS TYPE          MANUAL
          SHUTTER TYPE       ELC ↵
          WHITE  BAL         ATW
          SLC                HIGH
          AUTO  GAIN         OFF
          REDUCE NOISE       – – –
          INTENSIFIER        – – –
          NEXT  PAGE ↵
          EXIT
```
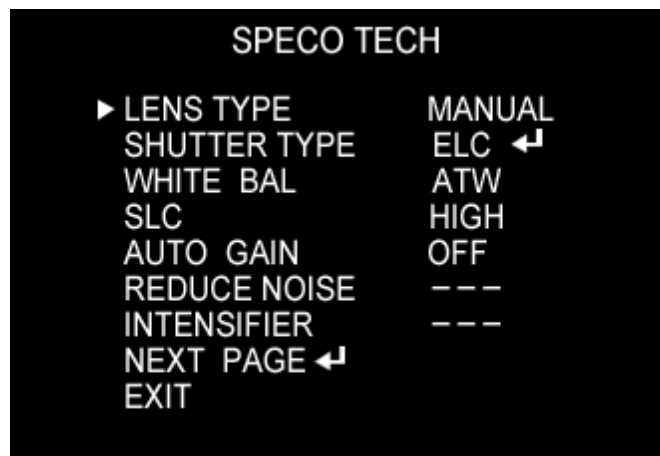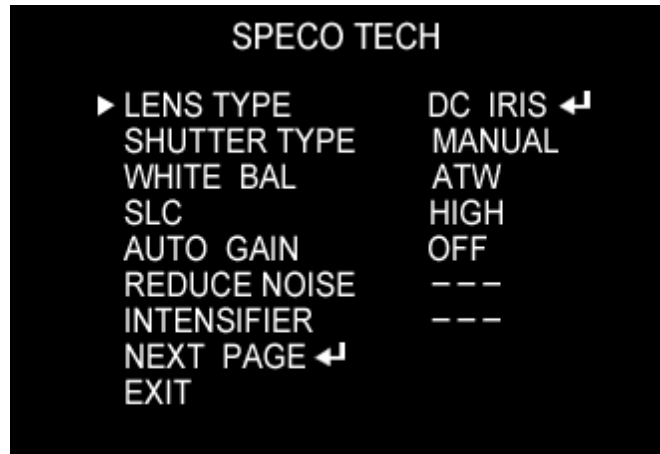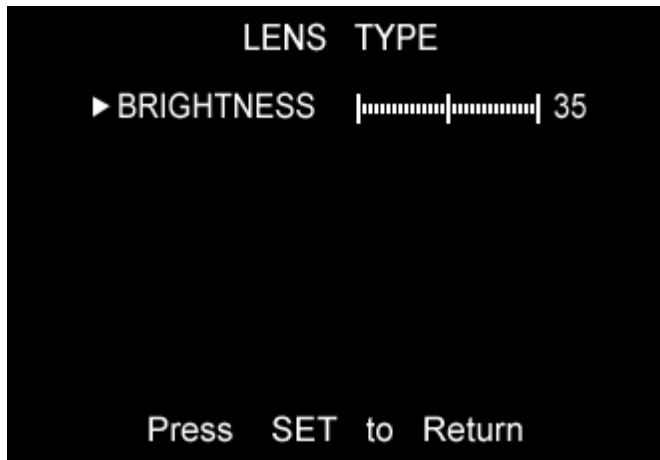
When DC LENS selected, press SET button to control the
BRIGHTNESS.

Shutter status and speed control

You can control brightness of the screen by the shutter speed.

   a. Press the SET button to display the setup menu and move the
       arrow indicator to 'SHUTTER' using the UP or DOWN
       button.

   b. Set 'SHUTTER' the desired mode using the LEFT or RIGHT
       button.

```
              SPECO TECH

      LENS TYPE          DC LENS
    ▶ SHUTTER TYPE       – – –
      WHITE  BAL         ATW
      SLC                HIGH
      AUTO  GAIN         OFF
      REDUCE NOISE       – – –
      INTENSIFIER        – – –
      NEXT  PAGE ◀┘
      EXIT
```

OFF : Deactivation

```
              SPECO TECH

      LENS TYPE          MANUAL
    ▶ SHUTTER TYPE       FLK
      WHITE  BAL         ATW
      SLC                HIGH
      AUTO  GAIN         OFF
      REDUCE NOISE       – – –
      INTENSIFIER        – – –
      NEXT  PAGE ◀┘
      EXIT
```
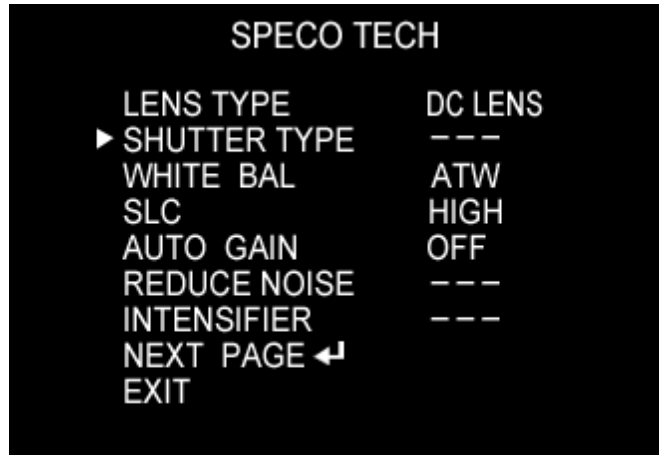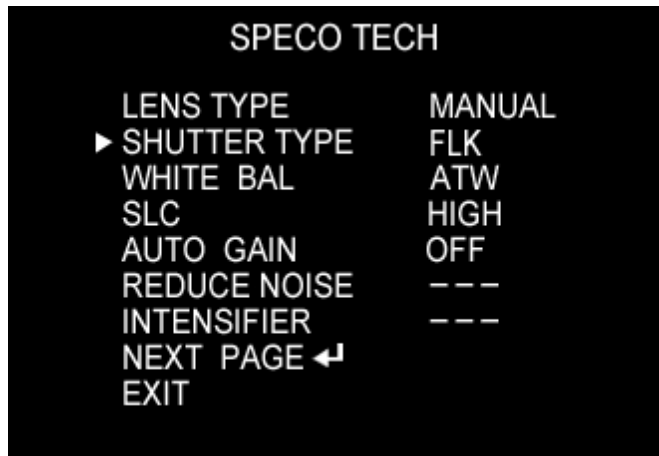
FLK(1/100) : Flicker mode
(When WDR is on, the image can flicker a little)

Manual : When setting shutter speed manually.

(Only for LENS mode)

You can select speed from '1/60' to '1/200,000'

```
              SPECO TECH

      LENS TYPE          MANUAL
    ▶ SHUTTER TYPE        MANUAL↵
      WHITE  BAL          ATW
      SLC                 HIGH
      AUTO  GAIN          OFF
      REDUCE NOISE        − − −
      INTENSIFIER         − − −
      NEXT  PAGE ↵
      EXIT
```

```
            SHUTTER  TYPE

    ▶ MANUAL               1/60








        Press  SET  to  Return
```
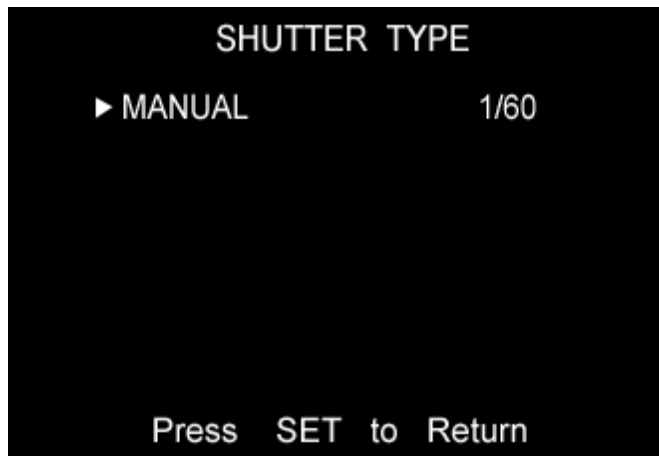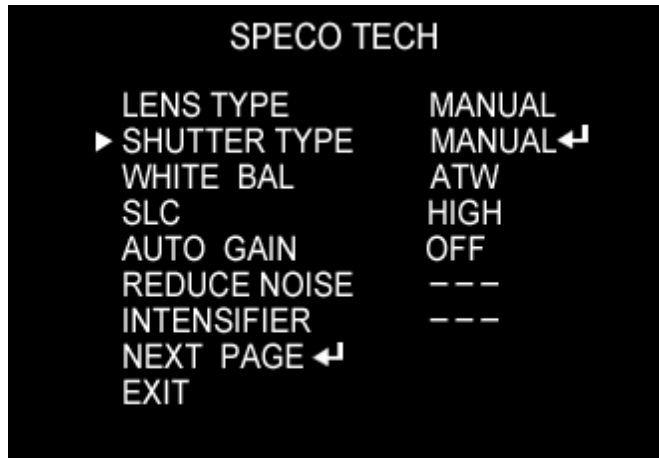
ESC : You can control the BRIGHTNESS.

```
                SPECO TECH

        LENS TYPE          MANUAL
      ▶ SHUTTER TYPE       ELC  ↵
        WHITE  BAL         ATW
        SLC                HIGH
        AUTO  GAIN         OFF
        REDUCE NOISE       – – –
        INTENSIFIER        – – –
        NEXT  PAGE ↵
        EXIT
```

```
                Brightness

      ▶ BRIGHTNESS    |⸺⸺⸺|⸺⸺⸺| 35




              Press   SET  to  Return
```
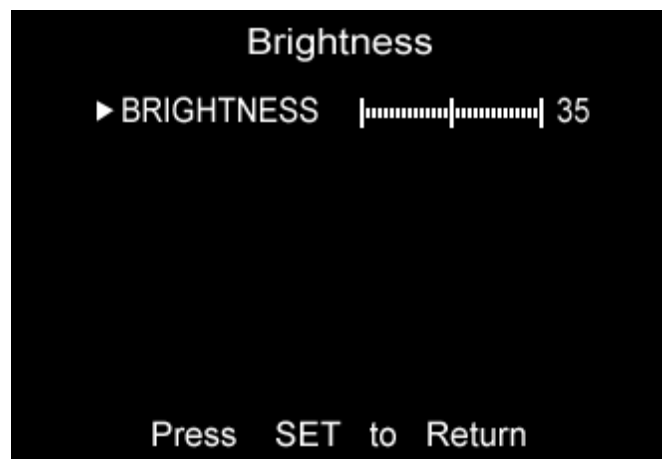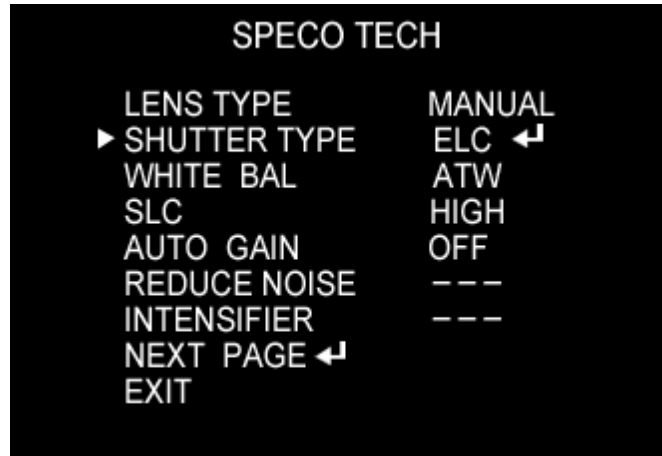
c. When completed, press 'SET'

2. SLC (Speco Light Compensation) – BACKLIGHT

A built-in SR chip provides intelligent light level control to overcome serve Backlight conditions.

    a. Press the SET button to display the SETUP menu and move arrow indicator to 'BACKLIGHT' using the UP or DOWN button.

    b. SET 'BACKLIGHT' to the desired mode using the LEFT or RIGHT button.

OFF   /   LOW   /   MIDDLE   /   HIGH


```
               SPECO TECH

     LENS TYPE         DC ↵
     SHUTTER TYPE      – – –
     WHITE  BAL        ATW
   ▶ SLC               HIGH
     AUTO  GAIN        OFF
     REDUCE NOISE      – – –
     INTENSIFIER       – – –
     NEXT  PAGE ↵
     EXIT
```
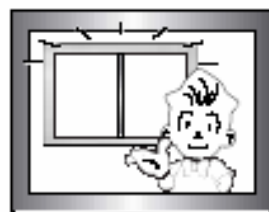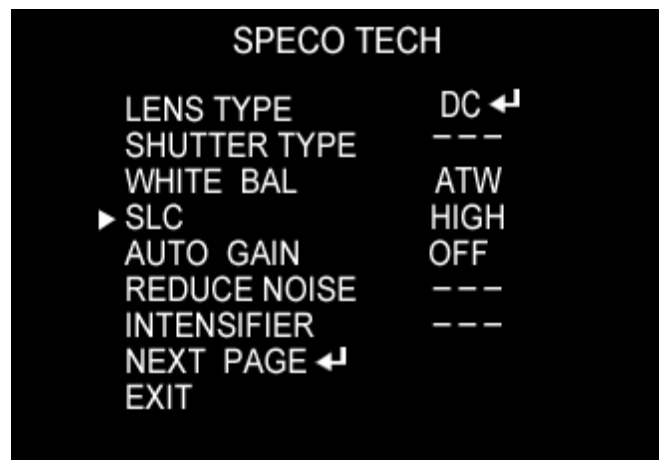

BLC

OFF

AUTO GAIN CONTROL (AGC)

AGC is to get bright picture. Higher GAIN level, getting brighter screen. However, you can get noise increase.

a. Press the SET button to display the SETUP menu and move arrow indicator to 'AGC' using the UP or DOWN button.

b. SET 'AGC' to the desired mode using the LEFT or RIGHT button.

OFF   /   ON

```
                    SPECO TECH

          LENS TYPE          DC ↵
          SHUTTER TYPE       – – –
          WHITE  BAL         ATW
          SLC                HIGH
        ▶ AUTO  GAIN         OFF
          REDUCE NOISE       – – –
          INTENSIFIER        – – –
          NEXT  PAGE ↵
          EXIT
```
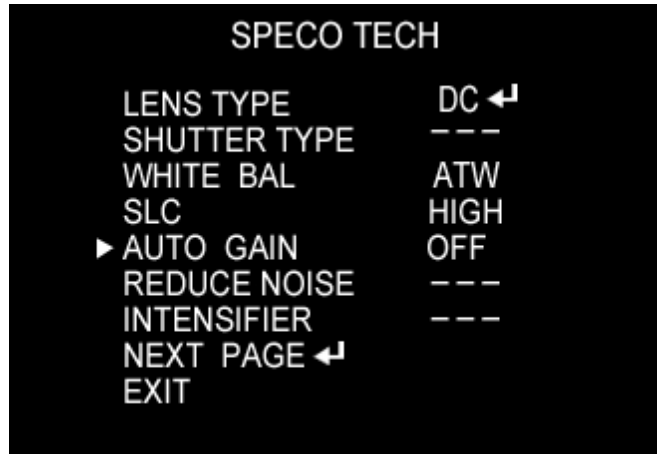
3. WHITE BALANCE (WITE BAL.)

For color control on the screen, use 'WHITE BALANCE' function.

a. Press the SET button to display the SETUP menu and move arrow indicator to 'WHITE BALANCE' using the UP or DOWN button.

b. SET 'WHITE BALANCE' to the desired mode using the LEFT or RIGHT button.

```
                SPECO TECH

        LENS TYPE          DC  ↵
        SHUTTER TYPE       – – –
      ▶ WHITE  BAL         AWC ↵
        SLC                HIGH
        AUTO  GAIN         OFF
        REDUCE NOISE       – – –
        INTENSIFIER        – – –
        NEXT  PAGE ↵
        EXIT
```

ATW (Auto Tracking White Balance)
: When color temperature is 2400 ~ 12000K, select this mode.
 (Ex. A fluorescent lamp, outdoor)

AWC (Auto White Balance Control)
: The white balance is automatically adjusted in a specific environment. In order to obtain the best result, press the set button while the camera focuses on white paper. If the environment including the light source is changed, you have to adjust the white balance again.

Manual : To fine adjust, select the Manual mode. You can increase or decrease the red or blue factor while monitoring the difference on the screen. Set to 'Manual, mode and press

the SET button. Increase or decrease the value for RED(R-Gain) and BLUE(B-Gain), watching the color of the picture, and press the SET button when you obtain the best color.

> **NOTE:** Proper White Balance may not be obtained under the following conditions in these cases select the AWC mode.
>
> When the scene contains mostly high color temperature object, such as a blue sky or sunset.
>
> When the scene is dim.
>
> If your camera faces fluorescent lamp directly or is installed in the place of the changing illumination.

4. Digital Noise Reduction (Dynamic Noise Reduction)

DNR is to reduce the noise on the screen.

    a. Press the SET button to display the SETUP menu and move arrow indicator to 'DNR' using the UP or DOWN button.

    b. SET 'DNR' to the desired mode using the LEFT or RIGHT button.

```
              SPECO TECH

     LENS TYPE          DC
     SHUTTER TYPE       ---
     WHITE  BAL         ATW
     SLC                HIGH
     AUTO  GAIN         OFF
   ▶ REDUCE NOISE       ---
     INTENSIFIER        ---
     NEXT  PAGE ↵
     EXIT
```
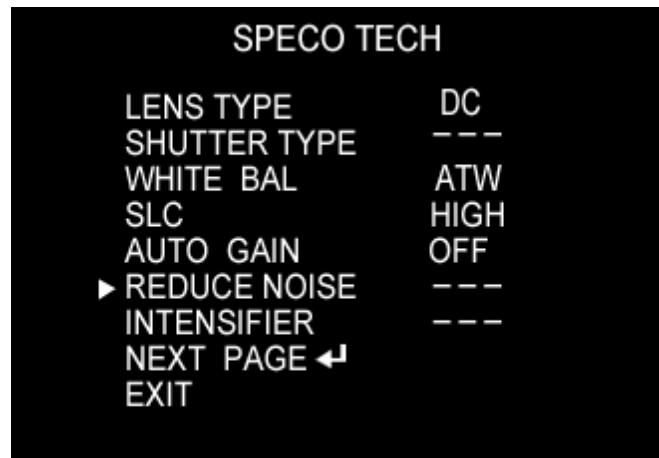
OFF : Deactivation

LOW : Low reduction of the noise

MIDDLE : Middle reduction of the noise

HIGH : High reduction of the noise

⚠ **NOTE:** If you change the 'GAIN' menu from AGC-L to AGC-H sensitivity is increased as well as noise on the screen.

When selected 'GAIN' menu OFF, DNR will not work.

5. INTENSIFIER

Allows you to get clear images with function under night or low light conditions

    a. Press the SET button to display the SETUP menu and move arrow indicator to 'INTENSIFIER' using the UP or DOWN button.

    b. SET 'INTENSIFIER' to the desired mode using the LEFT or RIGHT button.

```
                SPECO TECH

    LENS TYPE           DC
    SHUTTER TYPE        – – –
    WHITE  BAL          ATW
    SLC                 HIGH
    AUTO  GAIN          OFF
    REDUCE NOISE        – – –
  ▶ INTENSIFIER         – – –
    NEXT  PAGE ↵
    EXIT
```
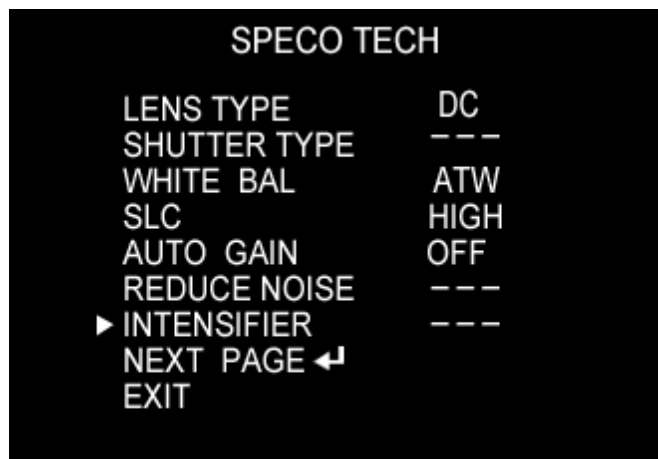
AUTO : When your camera is under night or low-lighting
              level, select this mode.

⚠️ **NOTE:** If you press SETUP at 'AUTO' menu from AGC-L to AGC-H sensitivity is increased as well as noise on the screen.

When selected 'GAIN' menu OFF, DNR will not work.

6. NEXT PAGE

    a. Press the SET button to display the SETUP menu and move arrow indicator to 'NEXT PAGE' using the UP or DOWN button.

    b. SET 'NEXT PAGE' to the desired mode using the LEFT or RIGHT button.

```
                SPECO TECH

        LENS TYPE          DC ↵
        SHUTTER TYPE       – – –
        WHITE  BAL         ATW
        SLC                HIGH
        AUTO  GAIN         OFF
        REDUCE NOISE       – – –
        INTENSIFIER        – – –
      ▶ NEXT  PAGE ↵
        EXIT
```
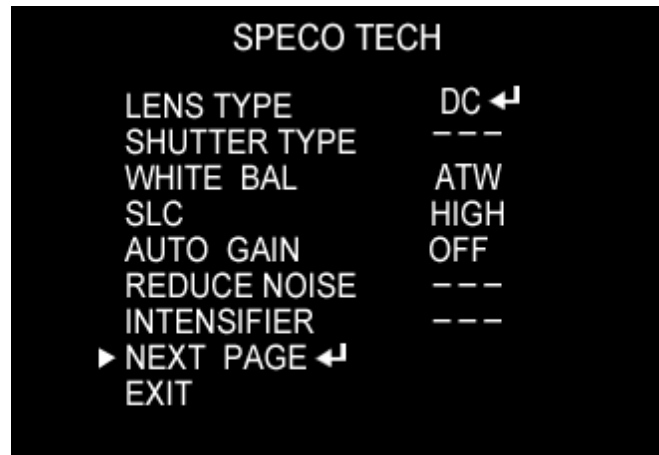
CAMERA TITLE

a. Press the SET button to display the SETUP menu and move arrow indicator to 'CAMERA TITLE' using the UP or DOWN button.

b. SET 'ON' using the LEFT or RIGHT button.

```
                NEXT  PAGE

        ▶ CAMERA  TITLE        ON ↵
          DAY / NIGHT          – – –
          SYNC                 INT
          MOTION               OFF
          PRIVACY              OFF
          REVERSE              OFF
          DETAIL               ON ↵
          DEFAULT
          PAGE  1↵
```
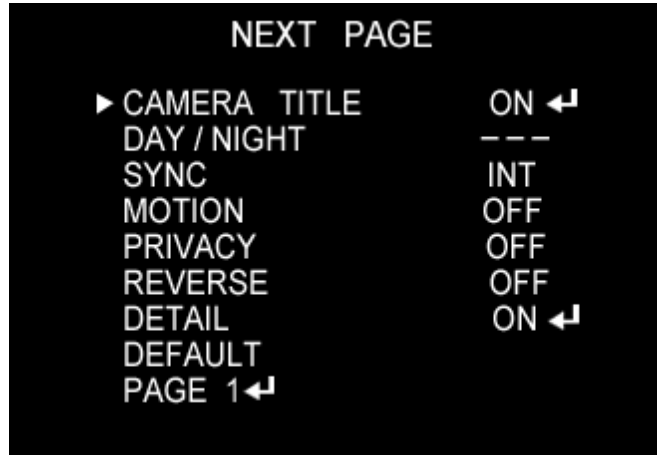
⚠ **NOTE:** If the CAMERA ID feature is set to 'OFF', the name will not displayed in the monitor.

c. Press the SET button to access tie SETUP mode.

d. You cam enter up to 15 characters.

① Move the cursor to character-enter location by using the LEFT or RIGT button.

② Select the desired character by using the UP or DOWN button.

③ Press Set button to confirm the blinking character. The first character is saved and the cursor in the bottom of the screen moves to the next position.

④ Repeat steps a,b and c until you create the foull name you want.

⑤ Select the position at which the CAMERA TITKE will b located on the screen.

CAMERA TITLE

ABCDEFGHIJKLM
NOPQRSTUVWXYZ
a b c d e f g h i j k l m
n o p q r s t u v w x y z
— 0 1 2 3 4 5 6 7 8 9

← → CLR POS END

Press SET to Return

NOTE: If the CAMERA feature is set to 'OFF', the name will not displayed in the monitor.

After erasing the character from right to left, correct the character again.

7. CAMERA TITLE

You can choose color and B/W mode electronically. (OPTION)

```
            NEXT  PAGE

    CAMERA  TITLE        ON ↵
  ► DAY / NIGHT          – – –
    SYNC                 INT
    MOTION               OFF
    PRIVACY              OFF
    REVERSE              OFF
    DETAIL               ON ↵
    DEFAULT
    PAGE 1↵
```
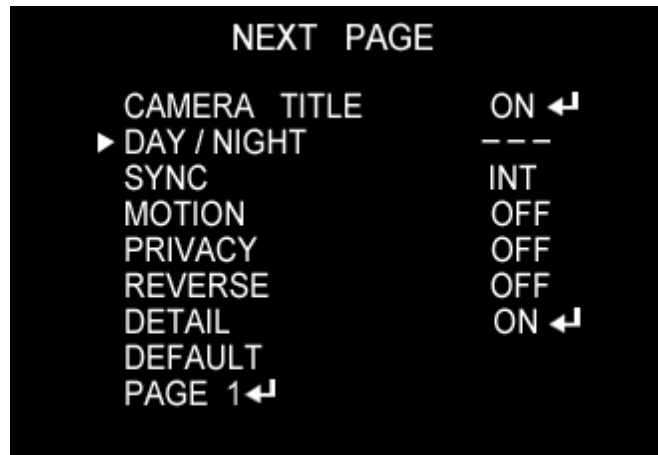
ON : Color mode

OFF : B/W mode

AUTO : generally color mode, B/W mode in low luminance.

⚠️ **NOTE:** OSD Key may not work for 3 seconds when the color B/W mode is changed.

8. SYNC

Two SYNCHRONIZATION modes are available… INTERNAL and
EXTERNAL LINE-LOCK. In LINE_LOCK mode, the camera sync to
the 60HZ phase.

    a. Press the SET button to display the SETUP menu and move
arrow indicator to 'SYNC' using the UP or DOWN button.

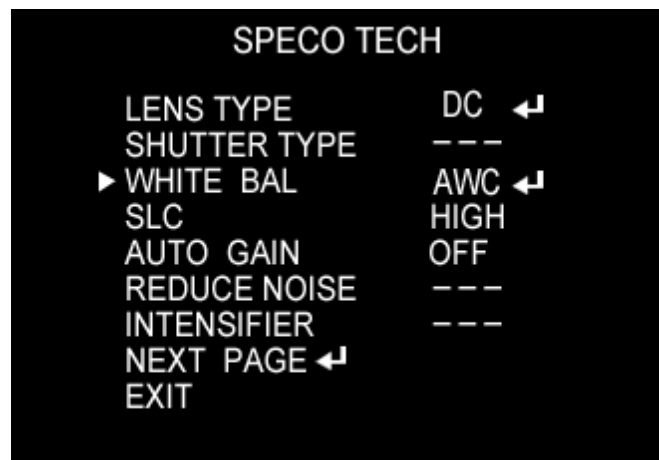   **b.** SET   to the desired mode using the LEFT or RIGHT button.

```
              NEXT  PAGE

      CAMERA  TITLE        ON ↵
      DAY / NIGHT          – – –
   ▶  SYNC                 INT
      MOTION               OFF
      PRIVACY              OFF
      REVERSE              OFF
      DETAIL               ON ↵
      DEFAULT
      PAGE  1↵
```
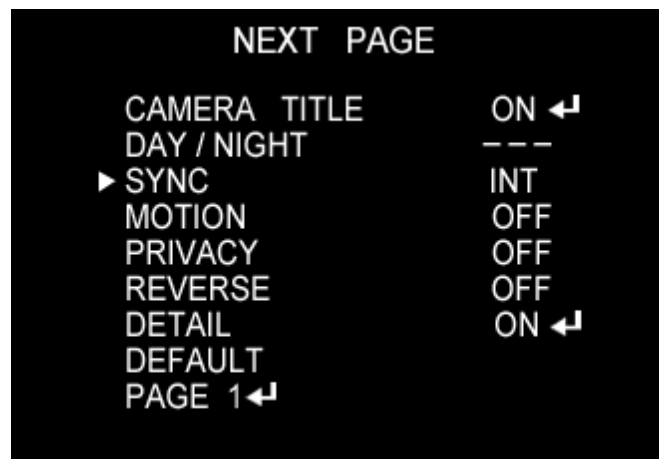
INT : Internal synchronization

L/L : if you choose 'L/L', you can adjust the desired phase.
    - Press the SET button.
    - You can adjust the desired phase from 0 to 270.

⚠ **NOTE:** Line Lock is only available in the 24-volt AC mode of
operation.

In 12volts DC, the SYNC menu is always in the ' INTERNAL'; mode.

9. PRIVACY

To mask an area that you want to be private.

     a. Press the SET button to display the SETUP menu and move arrow indicator to 'PRIVACY' using the UP or DOWN button.

     b. SET 'PRIVACY'   to the desired mode using the LEFT or RIGHT button.
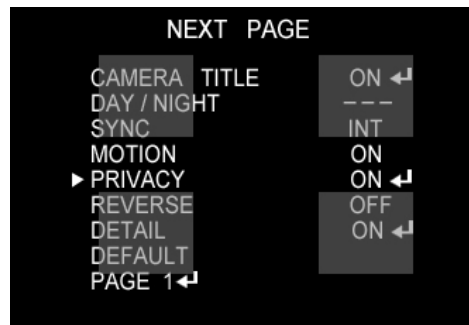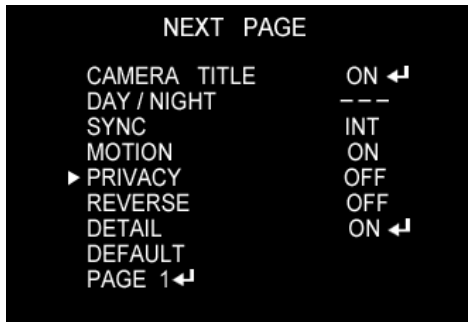
OFF : Deactivation

ON : PRIVACY mode activated
- Press the SET button.
- Move the arrow indicator to area you want to mask.
- Set 'ON' using LEFT or RIGHT button.
- Press the SET button and then set the area' bounds with the method like MOTIN DET. Set

10. REVERSE

    a. Press the SET button to display the SETUP menu and move arrow indicator to 'REVERSE' using the UP or DOWN button.

    b. SET 'REVERSE' to the desired mode using the LEFT or RIGHT button.

```
              NEXT  PAGE

        CAMERA  TITLE        ON ↵
        DAY / NIGHT          – – –
        SYNC                 INT
        MOTION               OFF
        PRIVACY              OFF
      ▶ REVERSE              OFF
        DETAIL               ON ↵
        DEFAULT
        PAGE 1↵
```
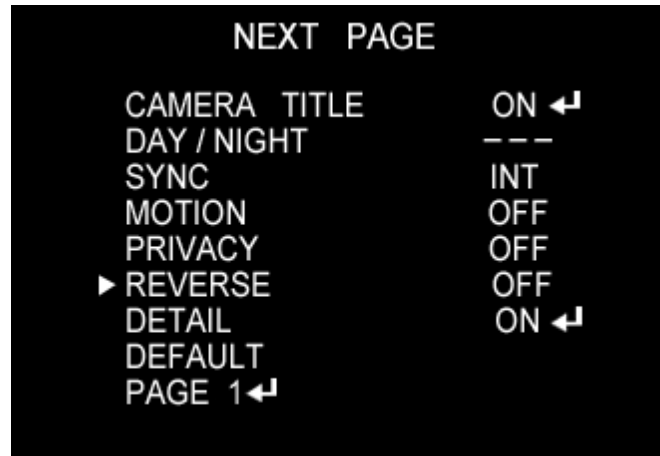
OFF : Deactivation

ON : Make a reverse turn to RIGHT or LEFT.

11. DETAIL

    a. Press the SET button to display the SETUP menu and move arrow indicator to 'DETAIL' using the UP or DOWN button.

    b. SET 'DETAIL' to the desired mode using the LEFT or RIGHT button.

```
                NEXT  PAGE

      CAMERA  TITLE          ON ↵
      DAY / NIGHT            – – –
      SYNC                   INT
      MOTION                 OFF
      PRIVACY                OFF
      REVERSE                OFF
    ▶ DETAIL                 ON ↵
      DEFAULT
      PAGE  1↵
```

```
                  DETAIL

    ▶ LEVEL          |▬▬▬▬▬|▬▬▬▬▬| 8




             Press  SET  to  Return
```
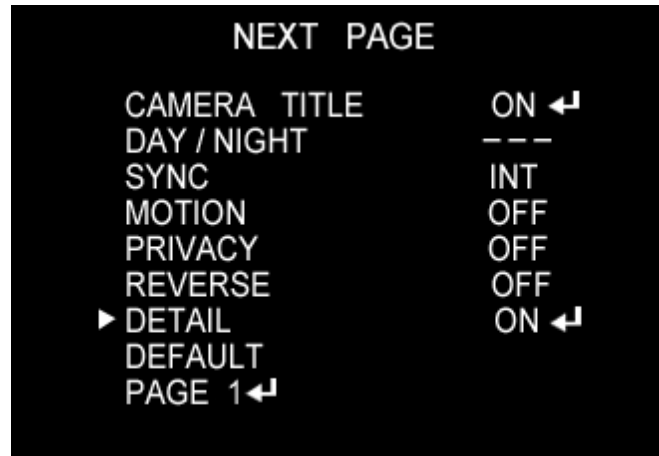
OFF : Deactivation

ON : DETAIL control mode (level 0~31)

When the level is up, the sharpness will increase.

Control this level to get your best picture quality.

If the level is too high, you can get an unnatural image with video noise.

12. DEFAULT

Use to reset your camera to FACTORY DEFAULT SETTING.

13. PAGE1

PAGE 1 : Save the setting of NEXT PAGE function, and then

2.4.4　Operating Camera OSD Menu (SIPSD10X only)

```
           MAIN MENU

           DOME SETUP
           CAMERA SET
           AUTO SCAN
           TOUR
           PRAVACY
           PATTERN
           ALARM
           SECTOR
           EXIT
```
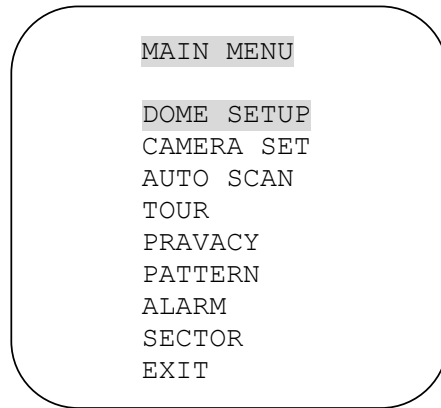
* Use the the five keys on the WebViewer GUI "up down" to move the position and "left right" to make selection

A. Dome Setup

To enter Dome setup, use the five keys right to move when cursor on dome setup.

```
        DOME  SET

CAMERA ID       :
CAM1□□□□□□□□□□□□
RECOVER       : OFF
MANUAL SPEED  : 100°/S        ←———  DEFAULT SETTING
AUTO FLIP     : OFF
ZOOM SPEED    : FAST
ALARM     : DISABLE
LANGUAGE  : ENGLISH
[NEXT PAGE]
SAVE AND EXIT
EXIT
```
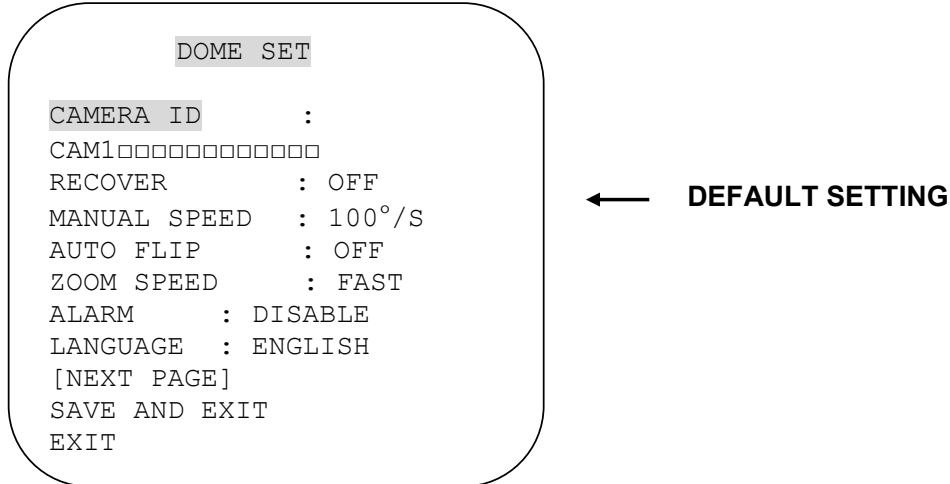
A-1. DOME SET - CAMERA ID

To set camera ID, select up to 16 characters using five keys to the left or right.

Press ZOOM TELE button to move to the next character from left to right direction and

ZOOM WIDE button to move to the next character from right to left direction (Space displays when □ appears)

A-2. DOME SET - RECOVER

This feature allows the dome to work from the last setting before you use the dome manually

(Auto scan, group tour, preset, pattern or sectors) , after the set time, even power shut down and it turns on again.   Recover time can be programmed from 15 second to 99 seconds. The default setting is OFF.

A-3. DOME SET - MANUAL SPEED

Manual Speed of Pan/Tilt is selectable from 100°/sec up to 150°/sec. The default setting is 100°/sec

A-4. DOME SET - AUTO FLIP

Auto Flip is available and the default setting is OFF.   Move five keys

2-71

"right or left" to select ON or OFF. The default setting is OFF.

A-5.   DOME SET – ZOOM SPEED

Zoom speeds are selectable FAST or SLOW mode.   Move five keys to the right direction for selecting FAST or SLOW.   The default setting is FAST.

A-6.   DOME SET – ALARM

All alarms are available after set as ENABLE Mode.   Move five keys to right or left direction for selecting ENABLE/DISABLE. The default setting is DISABLE.

A-7.   DOME SET – LANGUAGE

Multiple languages are selectable here including English, Italian and Polish.   Move five keys to the right or left direction to select language. The default setting is ENGLISH.

A-8.   DOME SET – [NEXT PAGE]

```
     DOME SET

SYSTEM LOCK:   : OFF
[PASS WORD]
[OSD DISPLAY]
[SYSTEM STATUS]
[INITIALIZATION]
[PREVIOUS PAGE]
```
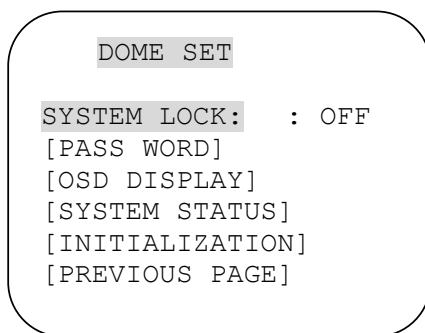
⟵ **DEFAULT SETTING**

A-8-1.   DOME SET – [NEXT PAGE] – SYSTEM LOCK

Password protection provides keeping memorized data. It cannot be adjusted by anybody without password.   In order to enter [PASS WORD] page, system lock status is must set as ON. Move five keys to right or left direction to select ON.   The default setting is OFF.

A-8-2.   DOME SET – [NEXT PAGE] – [PASSWORD]

To enter this page to set a password, move five keys to the right direction. The password must be set by preset number from 001 to 255 **(Default 99)**

2-72

The default setting is BLANK.

```
      ENTER PASSWORD

BY ENTERING  PRESET CODE
PASSWORD ***
CONFIRM  ***
```
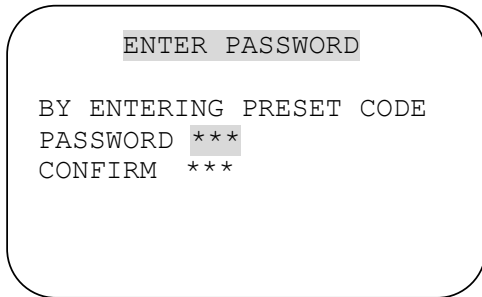
Press any number from 001~255 with preset button on password blank
and again it on confirm blank.   Then "CONFIRMED" is displayed on the
monitor and the menu will go back to the previous page automatically.

```
      ENTER PASSWORD                    ENTER PASSWORD

BY ENTERING PRESET CODE          BY ENTERING PRESET CODE
PASSWORD ***                     PASSWORD ***
CONFIRM  ***CONFIRMED            CONFIRM  ***CANCELLED
```

           \<CONFIRMED\>   \<CANCELLED\>
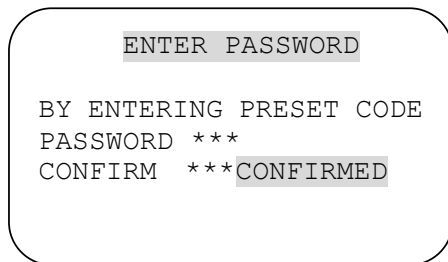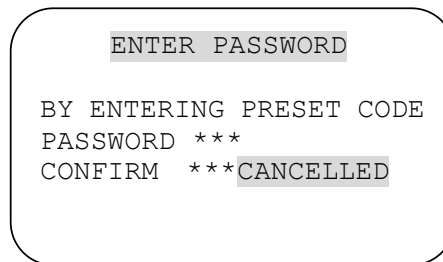
If user presses wrong preset number between PASSWORD and
CONFIRM, "CANCELLED" is displayed on the monitor and if user failed 3
times, the menu will return to the previous page automatically * After
setting a Password, an operator must press memorized password in
order to enter OSD MAIN MENU, or to change the data which is
memorized originally.
* An operator must remember the password for the operation.
Manufacturer does not provide a   memorized password.

A-8-3.   DOME SET – [NEXT PAGE] – [OSD DISPLAY]

OSD ID displayed after set ON in here and it can be hiding if selected
OFF.   Move five keys to the right or left direction in order to select
OFF/ON when the cursor is located each item.

```
        OSD DISPLAY

 CAMERA ID : OFF
 PRESET ID : OFF              ←──── DEFAULT SETTING
 SECTOR ID : OFF
 COORDINATE: ON
 [PREVIOUS PAGE]
```
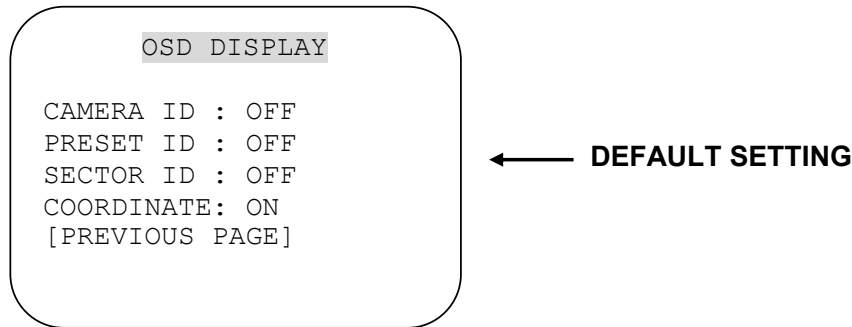
A-8-4.   DOME SET – [NEXT PAGE] – [SYSTEM STATUS]

This page shows the information of this camera.

```
        SYSTEM STATUS

 PROTOCOL  : PELCO D, P
 BAUD RATE : 2400 BPS
 FIRMWARE VER.: 2.00          ←──── DEFAULT SETTING
 UPGRADED DATE : 06.07,22
 CAMERA MODULE : SDM100
 [PREVIOUS PAGE]
```
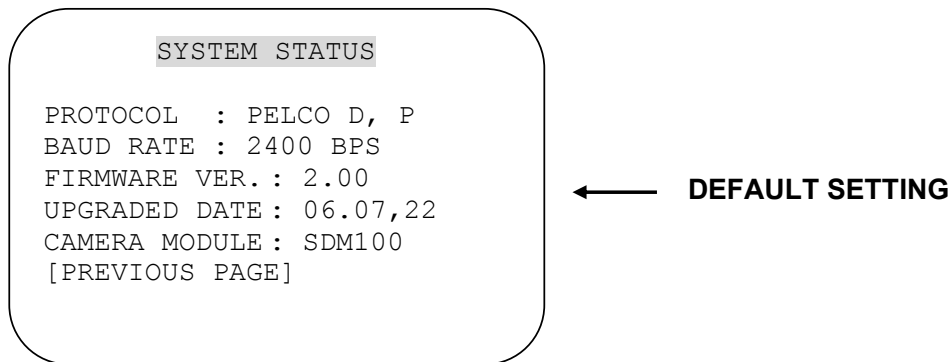
- Protocol and baud rate are shown according to the dip switch setting

(Refer to page 29, 30 and 31)

- Firmware version and upgraded date will be changed if upgraded.

- Below camera modules can be set as follows.

 SDM100: SAMSUNG 10X ZOOM CAMERA MODULE.

 EN300 : OPTICAL 3X MODULE (PAN FOCUS)

        : Board Camera (with Fixed Lens)

A-8-5.   DOME SET – [NEXT PAGE] – [INITIALIZATION]

To clear all memorized data for tour, preset, sector, privacy or pattern,

move five keys to the right direction when the cursor is on

[INITIALIZATION]

```
         INITIALIZATION


[TOUR CLEAR]
[PRESET CLEAR]
[SECTOR CLEAR]
[PRIVACY CLEAR]
[PATTERN CLEAR]
[LOAD OPTIMIZED
DEFAULT]
[PREVIOUS PAGE]
```
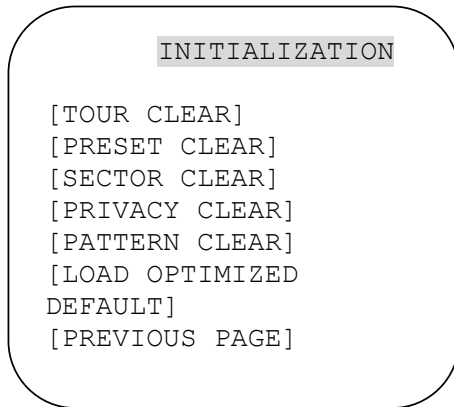
- To clear memorize any data, move five keys to the right direction when
  cursor is on each item.

```
TOUR CLEAR


ARE YOU SURE? YES NO
```
→
```

      TOUR CLEAR

```
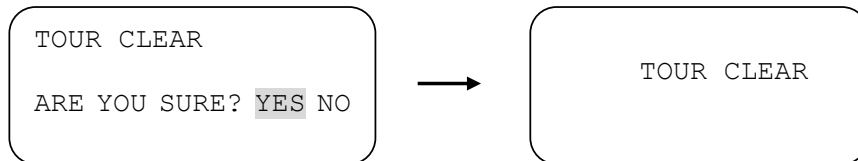
Press FOCUS NEAR button when the cursor is at YES in order to clear
memorized data.   Then flickered each item such as tour, preset, sector
and so on is displayed on the monitor about 2~3 seconds.   After this
process, the menu is returned to the previous page.
* [PRESET CLEAR], [SECTOR CLEAR], [PRIVACY CLEAR], [PATTERN
CLEAR] are same as [TOUR CLEAR].

```
LOAD OPTIMIZED DEFAULT


ARE YOU SURE? YES NO
```
→
```

   ALL DATA INITIALIZING

```
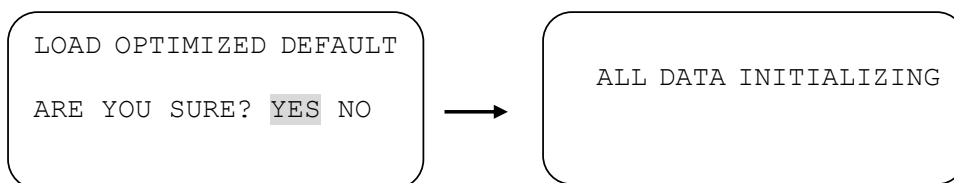
- To clear all data and wants returning to factory default, move five keys
to the right direction when cursor is at [LOAD OPTIMIZED DEFAULT] to
enter the above page.
- Move five keys to the right or left direction in order to select YES, press
FOCUS NEAR button.
- Then "ALL DATA INITIALIZING" is displayed about 5~7 seconds and
then the menu is returned to the previous page automatically.

A-9. DOME SET – [NEXT PAGE] – SAVE AND EXIT

To saving the memorized data and escape this page, move five keys to
the right direction when cursor is at SAVE AND EXIT.

A-10. DOME SET – [NEXT PAGE] – EXIT

In order not to save any data and wants to escape this page, move five
keys to the right direction when cursor is at EXIT

B. CAMERA SET

```
        CAMERA SET                        CAMERA SET

 FLICKER   : OFF
 MIRROR : OFF
 APERTURE  : 10                   FLICKER        : OFF
 D ZOOM : OFF                     BLC    : OFF
 WB MODE   : AWB MODE             EXIT
 PIC FLIP  : OFF
 BLC : OFF
 D/N MODE  : AUTO
 DSS MODE  : OFF
 EXIT
```
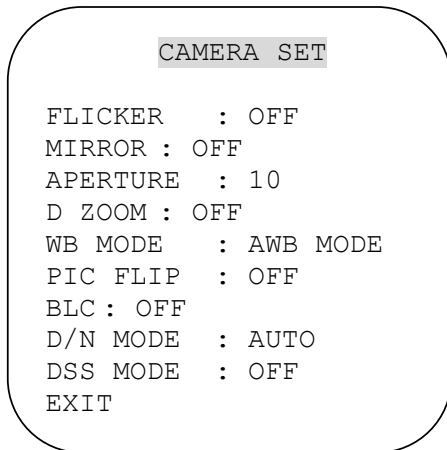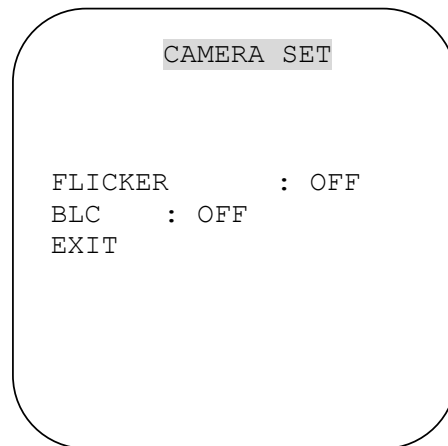
<TS-PTZ10X>   < TS-PTZ3X >

B-1. CAMERA SET - FLICKERLESS

Flickerless feature is selected between 50Hz and 60Hz.   The default
setting is OFF (NTSC: 60Hz / PAL: 50Hz).   Set flicker mode ON when
power source is in discord with frequency. The default setting is OFF

B-2. CAMERA SET - MIRROR

This feature shows left and right exchanged picture image like mirror.
The default setting is OFF.
        (10X Zoom)

B-3. CAMERA SET – APERTURE

Aperture enhances picture details by increasing gain of the caemra and

2-76

sharpens the edges in the picture.   The default seeting is 10. (the aperture level is from 01 ~ 15)
        (10X Zoom)

B-4.   CAMERA SET – D ZOOM

Move five keys to the right direction in order to set as ON, if Digital Zoom is necessary at install field. The default setting is OFF.
        (10X Zoom)

B-5.   CAMERA SET – WB MODE

White balance functions have 4 modes according to the condition of exterior lighting. The default setting is AWB and it may change the mode option accoding to the lighting conditions as below.
AWB Mode – 3,200°K to 6, 000°K   (10X Zoom)

- Indoor – up to 3,200°K
- Outdoor – up to 5,800°K
- ATW Mode -   2,000°K to 10, 000°K

B-6.   CAMERA SET – PIC FLIP

Picture flip feature provides the top and down exchanged picture image horizontally. Move five keys to the right or left direction to select OFF/ON. The default setting is OFF.
        (10X Zoom)

B-7. CAMERA SET – BLC (Back Light Compensation)

The default setting is OFF and BLC modes can be OFF/ON.
OFF – Backlight compensation is not activated.
ON – Back light compensation is activated.

B-8. CAMERA SET – D/N MODE

 ICR filter is changeable according to the lighting, AUTO – NIGHT
 MODE – DAY MODE.
The default setting is AUTO MODE.
    (10X Zoom)

B-9. CAMERA SET – DSS MODE (DIGITAL SLOW SHUTTER)

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If DSS turns on, digital slow shutter is working. Per second, the electronic shutter will remain open to receive some more lighting.

(10X Zoom)

B-10. CAMERA SET – EXIT

To escape this page, move five keys to the right direction.

C. PRESET SET

To enter PRESET SET, move five keys to the right direction.

```
        PRESET SET

PRESET NO :001
PRESET
ID :PRESET001-------
PAN :XXX.XX  TILT : XXX.XX          ⟵   DEFAULT SETTING
SAVE
EXIT
```
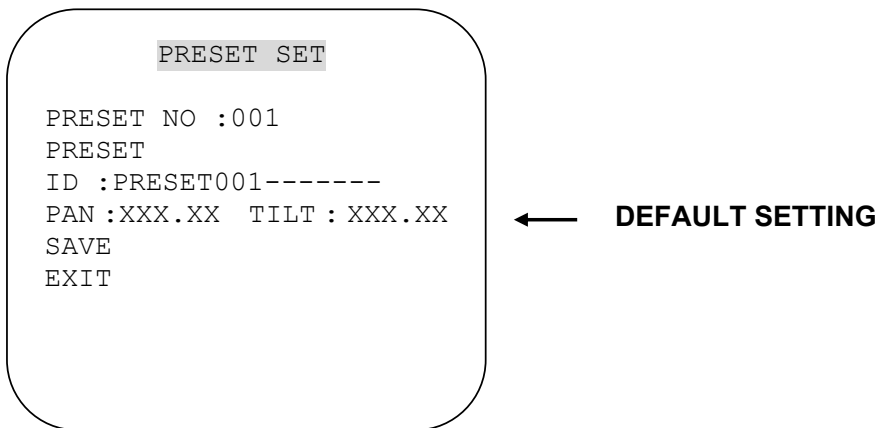
C-1.　　PRESET – PRESET NO.

Up to 165 numbers of preset positions are available.　Move five keys to the right or left direction to select preset no.

C-2.　PRESET – PRESET ID

To set preset ID, select up to 16 characters using Five keys to the left or right.

Press ZOOM TELE button moves to the next character from the left to the right direction and ZOOM WIDE button moves to the next character from the right to left direction

(Space displays when ☐ appears)

C-3.　PRESET – PAN: XXX.X TILT: XX.X

Press FOCUS FAR button in order to set preset position then, use the five keys to the position where memorized preset no. is needed. Then

2-78

press FOCUS FAR button again after setting a preset location.

C-4. PRESET – SAVE

Move five keys to the right direction when the cursor is at SAVE and then
the cursor will be located on Preset ID for the continuous preset No.
setting.

C-5. PRESET – EXIT

To escape this page, move five keys to the right direction.

D. AUTO SCAN SET

```
         AUTO  SCAN  SET

START ANGLE   : XXX.X.XX.X
END ANGLE : XXX.X.XX.X
DIRECTION : CW
ENDLES    : OFF
SPEED     : 10°/S
DWELL TIME: 03              ⟵  DEFAULT SETTING
SAVE AND EXIT
EXIT
```

D-1. AUTO SCAN- START ANGLE

To set start angle, press FOCUS FAR button then move five keys to the
starting angle which is needed memorized.   To press FOCUS FAR
button again is to escape.

D-2. AUTO SCAN- END ANGLE

To set end angle, press FOCUS FAR button then move five keys to the
starting angle which is needed memorized.   To press FOCUS FAR
button again is to escape.

D-3. AUTO SCAN – DIRECTION

Auto Scan directions are available with two direction as CW or CCW by
five keys to the right or left direction

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CW: Clock wise direction (Default)

CCW: Count Clock Wise Direction.

D-4.   AUTO SCAN – ENDLESS

Auto Scan can use endless rotation, move five keys to the right direction in order to select ON.   Otherwise, the default setting is OFF.

D-5.   AUTO SCAN – SPEED

User can use auto scan speed from 05°/S up to 35°/S and the default setting is 10°/S

D-6.   AUTO SCAN – DWELL TIME

To select dwell time, move five keys to the left or right direction in order to adjust dwell time. Possible to set from 01 second to 30 seconds and the default setting is 03 seconds.

D-7.   AUTO SCAN – SAVE AND EXIT

To saving the memorized data and escape this page, move five keys to the right direction when cursor is at SAVE AND EXIT.

D-8.   AUTO SCAN – EXIT

To escape this page, move five keys to the right direction.

E. TOUR SET

8 Programmable tours can be set and each tour is available to set up to 64 preset steps.

```
              TOUR SET

 TOUR NO          : 01
 TOUR TITLE  :
 TOUR01□□□□□□□□□□
 TOUR STEP   : 01
 PRESET NO.  : 01          ←── DEFAULT SETTING
 DWELL TIME  : 03
 SPEED       : 200°/S
 SAVE
 EXIT
```
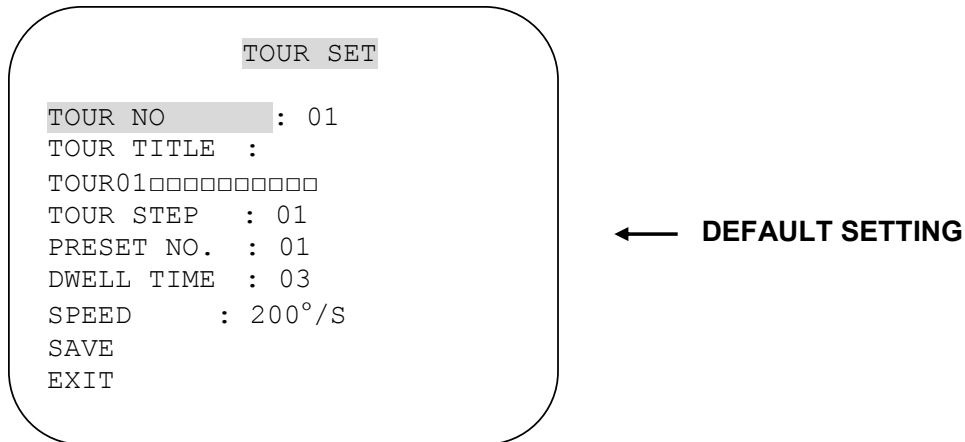
E-1.   TOUR SET – TOUR NO.

Max.   8 group tour no. set by the five keys are available.

E-2.   TOUR SET – TOUR TITLE

To set tour title, select up to 16 characters using Five keys to left or right.
Press ZOOM TELE button to move the next character from the left to the right direction and ZOOM WIDE button to move the next character from the right to left direction (Space displays when □ appears)   Tour title is not displayed on the monitor, but only for the reference of user.

E-3.   TOUR SET – TOUR STEP

Each tour group consists of up to 60 preset steps with different dwell time and speed. It is possible to match any preset # for each tour step.

E-4.   TOUR SET – PRESET NO.

The decided tour step #1 ~64, it is possible to select any preset no. up to 64.   The default setting is BLK

E-5.   TOUR SET – DWELL TIME

Dwell time provides up to 99 seconds from 01 second.   The default

2-81

setting is 03 seconds.

E-6. TOUR SET – SPEED

Each tour step can be set with different tour speed up to 200°/S and it is selectable from 10°/S.　Move five keys to the right or left direction to select tour speed. The default setting is 200°/S.

E-7. TOUR SET – SAVE

To save the memorized data and escape this page, move five keys to the right direction when cursor is at SAVE

E-8. TOUR SET – EXIT

To escape this page, move five keys to the right direction

F. PRIVACY SET

Privacy function is provided by (10X Zoom) only.

4 Privacy masking zones are available to block out areas of security.

```
        PRIVACY SET


PRIVACY NO: 01
DISPLAY      : OFF
ACTION    : MOVE
SAVE                        ←——  DEFAULT SETTING
EXIT
```
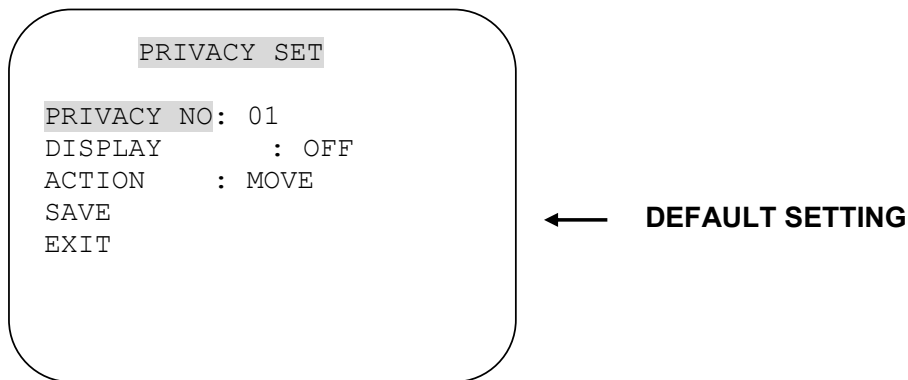
F-1. PRIVACY SET – PRIVACY NO.

Up to 4 privacy masking zones are available.

F-2. PRIVACY SET – DISPLAY

Move five keys to the right or left direction to set ON in order to show the selectable block in the center of the monitor.　This block appears as a translucent square with blue color after set ON.　The default setting is OFF.

F-3. PRIVACY SET – ACTION(MOVE/ADJUST)

To set the blocking area, press FOCUS FAR button when the MOVE
MODE is appeared.   Then use the five keys to the user defined area in
order to set blocking area.   Then press FOCUS FAR button again to
escape from MOVE MODE.

To adjust size of blocking area, move five keys to the right or left direction
when the cursor is on ACTION. After move mode changed to ADJUST
MODE, press FOCUS FAR button in order to adjust the size of blocking
area. The size of blocking area can be adjustable by using five keys up
down or left right,. After adjusting size of blocking area, press FOCUS
FAR button to escape ADJUST mode.

- ADJUST: You can change the masking size by using five keys to the
  left or right direction
- MOVE: You can move the masking area by using five keys to the left
  or right direction (Default)

F-4. PRIVACY SET – SAVE

After setting the privacy masking zone, to save the data, move five keys
to the right direction when the cursor is on SAVE. After saving the data,
the cursor moves to PRIVACY NO.2 automatically to prepare the next
privacy masking zone.

F-5. PRIVACY SET – EXIT

To escape this page, move five keys to the right direction

G. PATTERN SET

8 programmable patterns are available with 16 characters of title.

```
        PATTERN SET


PATT NO      : 01
PATT TITLE: PATTERN01□□□□□□□
DATA FILL : 100%          ←——    DEFAULT SETTING
SAVE
EXIT
```

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G-1.   PATTERN SET – PATT NO.

Up to 8 programmable user-defined patterns set by the five keys on the Webviewer GUI are available.

G-2.   PATTERN SET – PATT TITLE

To set PATTERN TITLE, select up to 16 characters using Five keys to the left or right.
Press ZOOM TELE button moves to the next character from the left to the right direction and ZOOM WIDE button moves to the next character from the right to left direction (Space displays when □ appears)   Pattern title is not displayed on the monitor, but only for the reference of user.

G-3.   PATTERN SET – DATA FILL

To fill the programming data, press FOCUS FAR button in order to start the data fill up. Filling data is programmed according to the the five keys on the Webviewer GUI movement.   Press FOCUS FAR button again in order to escape.

G-4.   PATTERN SET – SAVE

To saving the filling data, move five keys to the right direction when the cursor is on SAVE. Then the cursor moves to the PATT NO.02 in order to prepare next pattern no.

G-5.   PATTERN SET – EXIT

To escape this page, move five keys to the right direction

H. ALARM SET

4 Alarm inputs are available and each alarm is activating to presets, group tours or patterns.

```
        ALARM SET

ALARM NO    : 01
ALARM INPUT: OFF
ALARM ACT  : 001        ←——  DEFAULT SETTING
SAVE
EXIT
```

H-1.   ALARAM SET – ALARM NO.

Up to 4 alarms are selectable by using five keys to the right direction when cursor is on ALARM NO.

H-2.   ALARAM SET – ALARM INPUT

Input alarm ways provide two different ways as NC (Normal Close) or NO (Normal Close)
The default setting is OFF

H-3.   ALARAM SET – ALARM ACT

Alarm activates various surveillance modes with Preset number up to 165, Group tour up to 8, Pattern up to 8.   Move five keys to the right or left direction to select any preset number, group tour no. or pattern no.

H-4.   ALARAM SET – SAVE

After setting the alarm input ways and activation, to save the data, move five keys to the right direction when the cursor is on SAVE. After saving the data, the cursor moves to Alarm NO.2 automatically to prepare the next alarm.

H-5.   ALARAM SET – EXIT

To escape this page, move five keys to the right direction

* Before activating Alarm, user must set ALARM ENABLE at DOME
        SET – ALARM – ENABLE (Refer to page 15)

I. SECTOR SET

Up to 8 programmable sectors are available with 16 characters.

This feature is useful to memory the certain location such as parking zone or so on.

When camera goes through this area, it shows the letter you memorized.

```
      SECTOR SET

SECTOR NO   : 01
SECTOR ID  : SECTOR01□□□□□□□□
SECTOR START: XXX.X.XX.X
SECTOR END  : XXX.X.XX.X
SAVE
EXIT
```

```
        Start Position


End Position
```
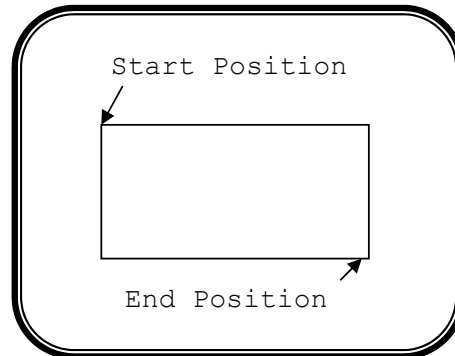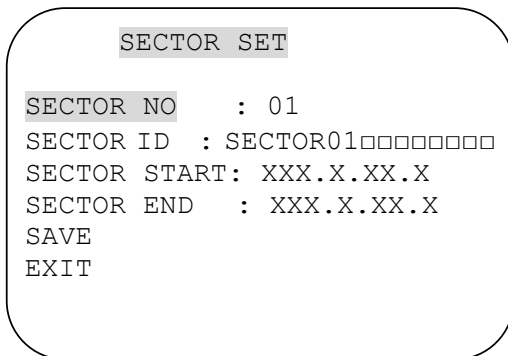
DEFAULT SETTING

I-1. SECTOR SET – SECTOR NO.

Up to 8 programmable sectors set by the five keys are available.

I-2. SECTOR SET – SECTOR ID

set SECTOR ID, select up to 16 characters by using five keys to the left or right.

Press ZOOM TELE button to move to the next character from the left to the right direction and ZOOM WIDE button to move to the next character from the right to left direction (Space displays when □ appears)

I-3. SECTOR SET – SECTOR START

To set SECTOR START angle, press FOCUS FAR button then move five keys to the left or right direction to set the position.   To press FOCUS FAR button again is to escape.

I-4. SECTOR SET – SECTOR END

To set SECTOR END angle, press FOCUS FAR button then move five keys to the left or right direction to set the position. To press FOCUS FAR button again is to escape.

I-5.   SECTOR SET – SAVE

After setting the SECTOR position, to save the data, move five keys to the right direction when the cursor is on SAVE. After saving the data, the cursor moves to SECTOR NO.2 automatically to prepare the next SECTOR.

I-6.   SECTOR SET – EXIT

To escape this page, move five keys to the right direction

J. EXIT

To escape OSD Main Menu, move five keys to the right or left direction then this camera is ready to operate.

2.4.5   DIP SW SETTING (SIPSD10X only)

Mini Speed Dome camera provides up to 63 camera ID and it's adjustable ID with 1st~6th of Dip switch

Open the camera case, set ID using DIP SW1.

* Factory default: Camera ID = 1, PELCO-D

Termination

Baud rate

Protocol
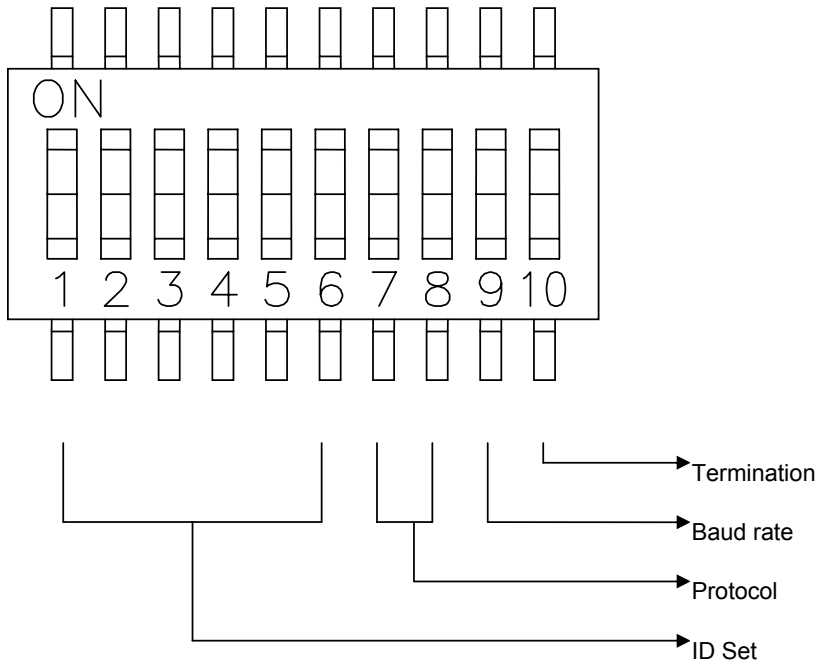
ID Set

2.4.6   ID SETTING (SIPSD10X only)

(1-ON, 0-OFF)(1➔10)

DIP SW	ID VALUE	DIP SW	ID VALUE	DIP SW	ID VALUE
100000XXXX	1	111010XXXX	23	101101XXXX	45
010000XXXX	2	000110XXXX	24	011101XXXX	46
110000XXXX	3	100110XXXX	25	111101XXXX	47
001000XXXX	4	010110XXXX	26	100011XXXX	48
101000XXXX	5	110110XXXX	27	100011XXXX	49
011000XXXX	6	001110XXXX	28	010011XXXX	50
111000XXXX	7	101110XXXX	29	110011XXXX	51
000100XXXX	8	011110XXXX	30	001011XXXX	52
100100XXXX	9	111110XXXX	31	101011XXXX	53

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010100XXXX	10	000001XXXX	32	011011XXXX	54
110100XXXX	11	100001XXXX	33	111011XXXX	55
001100XXXX	12	010001XXXX	34	000111XXXX	56
101100XXXX	13	110001XXXX	35	100111XXXX	57
011100XXXX	14	001001XXXX	36	010111XXXX	58
111100XXXX	15	101001XXXX	37	110111XXXX	59
000010XXXX	16	011001XXXX	38	001111XXXX	60
100010XXXX	17	111001XXXX	39	101111XXXX	61
010010XXXX	18	000101XXXX	40	011111XXXX	62
110010XXXX	19	100101XXXX	41	111111XXXX	63
001010XXXX	20	010101XXXX	42		
101010XXXX	21	110101XXXX	43		
011010XXXX	22	001101XXXX	44		

2.4.7   PROTOCOL (SIPSD10X only)

7th~8th dip switches are used for Protocol Setting.

Factory Default: Pelco-D or Pelco-P (Auto detection)

DIP SW1- 7	DIP SW1- 8	
OFF	OFF	Pelco-D or Pelco-P

2.4.8   BAUD RATE SETTING (SIPSD10X only)

The 9th Dip Switch is used for BAUD RATE setting.

DIP SW can be changeable to 2400bps, 9600bps.

Factory Default: 9600bps.

DIP SW1 9th	BAUD RATE
OFF	2400
ON	9600

3 APPENDIX

3.1   Specification

3.1.1   SIP Camera Series

* Network Spec.

Video Compression	
Compression	MPEG-4 SP
Resolution	Full D1 (720x480 in NTSC, 720x576 in PAL)
	VGA (640x480 inNTSC, 640x480 in PAL)
	CIF (352 x 240 in NTSC, 352x288 in PAL)
	QCIF (176x120 in NTSC, 176x144 in PAL)
Bit Rate	28 K ~ 3 M bps
Image Framge Rate	30 fps at full D1 resolution (NTSC)
	25 fps at full D1 resolution (PAL)
Audio Input	
Compression	8kHz, Mono, PCM
Audio Line Input	Unbalanced, 1.4 Vp-p 1Vrms, terminal Block
Audio Output	
Compression	8kHz, Mono, PCM
Audio Line Output	Unbalanced, 1.4 Vp-p 1Vrms, terminal Block
External I/O	
Reset Button	Factory default
Joystick	OSD Control
Network	
Ethernet	Ethernet(10/100 Base-T),RJ-45 connector
Protocol	TCP, UDP ,IP, HTTP, DHCP, PPPoE, RTP, RTSP
Software	
Web Browser	MS Internet Explorer 6.0 or above
Security	Password protection: configured by the administrator
Compatibility	Most major 3rd party software suites
NVR Software	Included at no additional charge

* Camera Spec.

SIPB1

Image Sensor	1/3" Sony Super HAD CCD 410K
Horizontal Resolution	540 TV Lines
Total Pixels	811 x 508(NTSC)
Effective Pixels	768 x 494 (NTSC)
Electric Shutter	1/60 ~ 1/200,000sec (NTSC)
	1/50 ~ 1/200,000sec (PAL)
Min. Scene Illumination	0.002Lux (Intensifier), 0.3Lux (Shutter)
Lens Type	DC Auto Iris Vari-Focal Lens f=2.8~11mm
Max. Aperture	1 : 1.3 ~ 2.0
Scanning System	2:1 Interlaced 525 Lines / 60Fields / 30
Synchronization	Internal
S/N Ratio	50dB(Weight On)
Day/Night	Software method
OSD (On Screen Display)	Built-in
White Balance	ATW / AWC / Manual
SLC (Speco Light Compensation)	Off / Low / Middle / High
AGC	Off / Low / Middle / High
Dynamic Noise Reduction (DNR)	Off / Low / Middle / High
INTENSIFIER	Built-in(selectable Limit ~ X128)
	Off / Low / Middle / High
Color	Auto (Auto Day/Night) / On
Motion Detection	Off /On
Privacy	Off /On (4Programable Zone)
Video output	1.0V [p-p] NTSC Composite, 75Ω / BNC
Power Source	DC12V (300mA)
	PoE (IEEE802.3af) with Class 3
Operational Temperature	-10℃ ~ +50℃ (- 14℉ ~122℉)
Operational Humidity	30% ~90% RH
Dimensions(WxHxD)	92 mm x 88 mm x 296 mm
Weight	1.4kg

SIPB2

Image Sensor	1/3" Sony Super HAD CCD 410K
Horizontal Resolution	540 TV Lines
Total Pixels	811 x 508(NTSC)
Effective Pixels	768 x 494 (NTSC)
Electric Shutter	1/60 ~ 1/200,000sec (NTSC)
	1/50 ~ 1/200,000sec (PAL)
Min. Scene Illumination	0.002Lux (Intensifier), 0.3Lux (Shutter)
Lens Type	DC Auto Iris Vari-Focal Lens f=5~50mm
Max. Aperture	1 : 1.3 ~ 2.0
Scanning System	2:1 Interlaced 525 Lines / 60Fields / 30
Synchronization	Internal
S/N Ratio	50dB(Weight On)
Day/Night	Software method
OSD (On Screen Display)	Built-in
White Balance	ATW / AWC / Manual
SLC (Speco Light Compensation)	Off / Low / Middle / High
AGC	Off / Low / Middle / High
Dynamic Noise Reduction (DNR)	Off / Low / Middle / High
INTENSIFIER	Built-in(selectable Limit ~ X128)
	Off / Low / Middle / High
Color	Auto (Auto Day/Night) / On
Motion Detection	Off /On
Privacy	Off /On (4Programable Zone)
Video output	1.0V [p-p] NTSC Composite, 75Ω / BNC
Power Source	DC12V (300mA)
	PoE (IEEE802.3af) with Class 3
Operational Temperature	-10℃ ~ +50℃ (- 14℉ ~122℉)
Operational Humidity	30% ~90% RH
Dimensions(HxD)	92 mm x 88 mm x 296 mm
Weight	1.4kg

SIPD3

Image Sensor	1/3" Sony Super HAD CCD 410K
Horizontal Resolution	540 TV Lines
Total Pixels	811 x 508(NTSC)
Effective Pixels	768 x 494 (NTSC)
Electric Shutter	1/60 ~ 1/200,000sec (NTSC)
	1/50 ~ 1/200,000sec (PAL)
Min. Scene Illumination	0.002Lux (Intensifier), 0.3Lux (Shutter)
Lens Type	DC Auto Iris Vari-Focal Lens f=2.8~11mm
Max. Aperture	1 : 1.3 ~ 2.0
Scanning System	2:1 Interlaced 525 Lines / 60Fields / 30
Synchronization	Internal
S/N Ratio	50dB(Weight On)
Day/Night	Software method
OSD (On Screen Display)	Built-in
White Balance	ATW / AWC / Manual
SLC (Speco Light Compensation)	Off / Low / Middle / High
AGC	Off / Low / Middle / High
Dynamic Noise Reduction (DNR)	Off / Low / Middle / High
INTENSIFIER	Built-in(selectable Limit ~ X128)
	Off / Low / Middle / High
Color	Auto (Auto Day/Night) / On
Motion Detection	Off /On
Privacy	Off /On (4Programable Zone)
Video output	1.0V [p-p] NTSC Composite, 75Ω / BNC
Power Source	DC12V (300mA)
	PoE (IEEE802.3af) with Class 3
Operational Temperature	-10℃ ~ +50℃ (- 14℉ ~122℉)
Operational Humidity	30% ~90% RH
Dimensions(HxD)	132 ø x 120.85 mm
Weight	1.4kg

SIPD4

Image Sensor	1/3" Sony Super HAD CCD 410K
Horizontal Resolution	540 TV Lines
Total Pixels	811 x 508(NTSC)
Effective Pixels	768 x 494 (NTSC)
Electric Shutter	1/60 ~ 1/200,000sec (NTSC) 1/50 ~ 1/200,000sec (PAL)
Min. Scene Illumination	0.002Lux　(Intensifier), 0.3Lux (Shutter)
Lens Type	DC Auto Iris Vari-Focal Lens f=5~50mm
Max. Aperture	1 : 1.3 ~ 2.0
Scanning System	2:1 Interlaced 525 Lines / 60Fields / 30
Synchronization	Internal
S/N Ratio	50dB(Weight On)
Day/Night	Software method
OSD (On Screen Display)	Built-in
White Balance	ATW / AWC / Manual
SLC (Speco Light Compensation)	Off / Low / Middle / High
AGC	Off / Low / Middle / High
Dynamic Noise Reduction (DNR)	Off / Low / Middle / High
INTENSIFIER	Built-in(selectable Limit ~ X128) Off / Low / Middle / High
Color	Auto (Auto Day/Night) / On
Motion Detection	Off /On
Privacy	Off /On (4Programable Zone)
Video output	1.0V [p-p] NTSC Composite, 75Ω / BNC
Power Source	DC12V (300mA) PoE (IEEE802.3af) with Class 3
Operational Temperature	-10℃ ~ +50℃ (- 14℉ ~122℉)
Operational Humidity	30% ~90% RH
Dimensions(HxD)	180.00 ø x 134.20 mm
Weight	1.4kg

SIPT5

Image Sensor	1/3" Sony Super HAD CCD 410K
Horizontal Resolution	540 TV Lines
Total Pixels	811 x 508(NTSC)
Effective Pixels	768 x 494 (NTSC)
Electric Shutter	1/60 ~ 1/200,000sec (NTSC)
	1/50 ~ 1/200,000sec (PAL)
Min. Scene Illumination	0.002Lux (Intensifier), 0.3Lux (Shutter)
Lens Type	C/CS Mount Lens selectable
Max. Aperture	1 : 1.3 ~ 2.0
Scanning System	2:1 Interlaced 525 Lines / 60Fields / 30
Synchronization	Internal
S/N Ratio	50dB(Weight On)
Day/Night	Software method
OSD (On Screen Display)	Built-in
White Balance	ATW / AWC / Manual
SLC (Speco Light Compensation)	Off / Low / Middle / High
AGC	Off / Low / Middle / High
Dynamic Noise Reduction (DNR)	Off / Low / Middle / High
INTENSIFIER	Built-in(selectable Limit ~ X128)
	Off / Low / Middle / High
Color	Auto (Auto Day/Night) / On
Motion Detection	Off /On
Privacy	Off /On (4Programable Zone)
Video output	1.0V [p-p] NTSC Composite, 75Ω / BNC
Power Source	DC12V (300mA)
	PoE (IEEE802.3af) with Class 3
Operational Temperature	-10℃ ~ +50℃ (- 14℉ ~122℉)
Operational Humidity	30% ~90% RH
Dimensions(WxHxD)	64mm x 55.4 x 120 mm
Weight	0.7kg

SIPSD10X

Pan Rotation Angle	360˚ Endless
Pan Speed	Manual 10˚ ~ 200˚/sec Preset Max 200˚ /sec
Tilt Rotation Angle	0˚ ~ 90˚
Tilt Speed	Manual 10˚ ~ 200˚/sec Preset Max 200˚ /sec
System Accuracy	0.02˚
Presets	164 positions with a 16-character label available for each position with different speed steps
Group Tour	Max. 8 Programmable group tours (each one consisting of up to 60 preset steps with different steps)
Auto scan	Programmable Auto scan
Pattern	8 Programmable Patterns (total 400 seconds)
Privacy Zone	4 privacy zones
Sector	8 selectable Sectors with 16 characters
Password Protection	Built-in
Auto Flip	ON / OFF
Protocol	Pelco D/P
Image Sensor	1/4" Sony Super HAD CCD 410K
Horizontal Resolution	More Than 500 TV Lines
Total Pixels	811 x 508(NTSC)
Effective Pixels	768 x 494 (NTSC)
Min. Scene Illumination	0.02Lux (ICR On), 0.7Lux (50IRE)
Lens	Optical 10x Optical Zoom(F=3.8 to 38mm) Digital 10x (100x with optical)
Day & Night (ICR)	Auto/ Day/ Night
Digital Slow Shutter	2/4/8/16/24/32/64/128/ OFF
S/N Ratio	More Than 50dB
BLC	ON / OFF
OSD (On Screen Display)	Built-in
White Balance	AWB/ATW/INDOOR/ OUTDOOR
Flickerless	(NTSC) ON / OFF (1/120)
AGC	Off / Low / Middle / High
Motion Detection	Off /On
Video output	1.0V [p-p] NTSC 75Ω
Power Source	DC12V (750mA)
Operational Temperature	-10℃ ~ +50℃ (- 14℉ ~122℉)
Operational Humidity	30% ~90% RH

Dimensions(HxD)	167 ø x 167 mm
Weight	1.6kg

3.1.2   SIPMP Camera Series

* Network Spec.

Video Compression	
Compression	MPEG-4 SP
Resolution	SXGA (1280x1024) at 8 fps HD720 (1280x720) at 10fps VGA (640x480) at 30 fps
Image Frame Rate	Up to 8 fps at SXGA resolution; Up to 10 fps at HD720 resolution; Up to 30 fps at VGA resolution
Audio Input	
Compression	8kHz, Mono, PCM
Audio Line Input	Unbalanced, 1.4 Vp-p 1Vrms, terminal Block
Audio Output	
Compression	8kHz, Mono, PCM
Audio Line Output	Unbalanced, 1.4 Vp-p 1Vrms, terminal Block
External I/O	
Reset Button	Factory default
Alarm(SIPMPT Only)	
Digital Input	1, terminal bloc
Transistor Output	1, terminal block
Network	
Ethernet	Ethernet(10/100 Base-T),RJ-45 connector
Protocol	TCP, UDP ,IP, HTTP, DHCP, PPPoE, RTP, RTSP, FTP, SMTP, DNS, DDNS, NTP, ICMP, IGMP, ARP, #GPP
Software	
Web Browser	MS Internet Explorer 6.0 or above
Security	Password protection: configured by the administrator
Compatibility	Most major 3rd party software suites
NVR Software	Included at no additional charge

* Camera Spec.

SIPMPB

Image Sensor	1/3" Micron Progressive Scan CCD
Effective Pixels	1280 x 1024
Electric Shutter	1/10 ~ 1/2,000sec (60Hz)
	1/10 ~ 1/2,000sec (50Hz)
Lens	F 4.3mm, f1.8 / 75Deg(Horizontal)
Min. scene Illumination	0.5 Lux at F1.8 (30 IRE, MAX AGC)
Synchronization	Internal
S/N Ratio	Better than 44 dB
Flickerless	1/120 sec(60Hz), 1/100 sec(50Hz)
Day/Night	Mechanical IR Cut Filter
White Balance	6Mode(AUTO,INDOOR1/2,OUTDOOR1/2,HOLD CURRENT,MANUAL) Configurable
AGC	Automatic (User defended)
BLC	YES
Motion Detection	Yes (3 Windows)
Power Source	DC12V (300mA)
	PoE (IEEE802.3af) with Class 3
Operational Temperature	-10℃ ~ +50℃ (- 14℉ ~122℉)
Operational Humidity	30% ~90% RH
Dimensions(WxHxD)	92 x 85 x 264 mm
Weight	1.3kg

SIPMPD

Image Sensor	1/3" Micron Progressive Scan CCD
Effective Pixels	1280 x 1024
Electric Shutter	1/10 ~ 1/2,000sec (60Hz)
	1/10 ~ 1/2,000sec (50Hz)
Lens	F 4.3mm, f1.8 / 75Deg(Horizontal)
Min. scene Illumination	0.5 Lux at F1.8 (30 IRE, MAX AGC)
Synchronization	Internal
S/N Ratio	Better than 44 dB
Flickerless	1/120 sec(60Hz), 1/100 sec(50Hz)
Day/Night	Mechanical IR Cut Filter
White Balance	6Mode(AUTO,INDOOR1/2,OUTDOOR1/2,HOLD CURRENT,MANUAL) Configurable
AGC	Automatic (User defended)
BLC	YES
Motion Detection	Yes (3 Windows)
Power Source	DC12V (300mA)
	PoE (IEEE802.3af) with Class 3
Operational Temperature	-10℃ ~ +50℃ (- 14℉ ~122℉)
Operational Humidity	30% ~90% RH
Dimensions(HxD)	132 ø x 120.85 mm
Weight	1.4kg

SIPMPT5

Image Sensor	1/3" Micron Progressive Scan CCD
Effective Pixels	1280 x 1024
Electric Shutter	1/10 ~ 1/2,000sec (60Hz)
	1/10 ~ 1/2,000sec (50Hz)
Lens	F 4.3mm, f1.8 / 75Deg(Horizontal)
Min. scene Illumination	0.5 Lux at F1.8 (30 IRE, MAX AGC)
Synchronization	Internal
S/N Ratio	Better than 44 dB
Flickerless	1/120 sec(60Hz), 1/100 sec(50Hz)
Day/Night	Software Method
White Balance	6Mode(AUTO,INDOOR1/2,OUTDOOR1/2,HOLD CURRENT,MANUAL) Configurable
AGC	Automatic (User defended)
BLC	YES
Motion Detection	Yes (3 Windows)
Power Source	DC12V (300mA)
	PoE (IEEE802.3af) with Class 3
Operational Temperature	-10℃ ~ +50℃ (- 14℉ ~122℉)
Operational Humidity	30% ~90% RH
Dimensions(WxHxD)	67 mm x 55 mm x 129.5 mm
Weight	0.4kg